

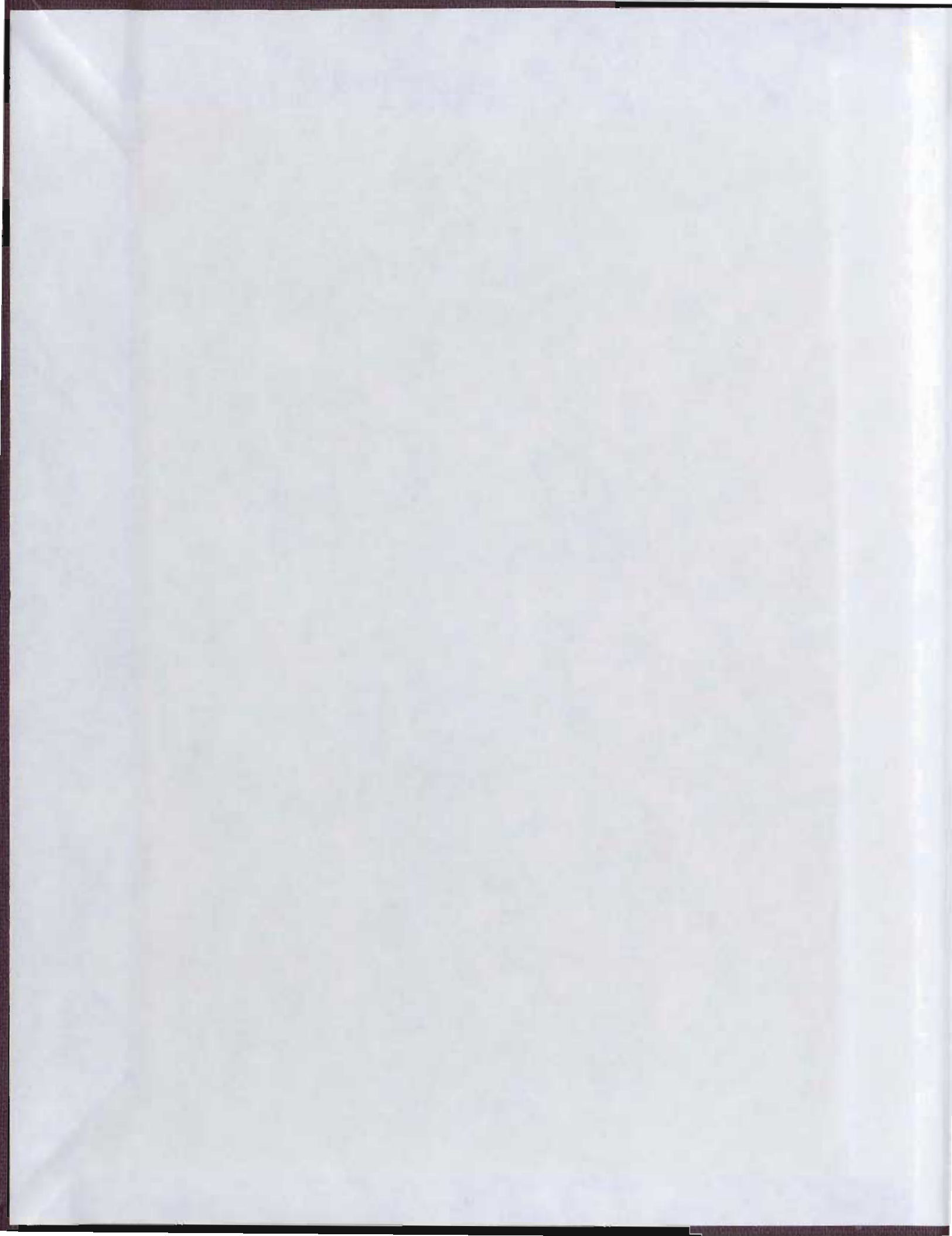
A STUDY OF HELPING BEHAVIOR BETWEEN
FRENCH AND ENGLISH INDIVIDUALS IN
CANADA

CENTRE FOR NEWFOUNDLAND STUDIES

**TOTAL OF 10 PAGES ONLY
MAY BE XEROXED**

(Without Author's Permission)

ALAIN MARCEL COUPAL



126510





National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

**THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED**

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

**LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE**

A Study of Helping Behavior Between French
and English Individuals in Canada

by



Alain Coupal, B.A.

A Thesis submitted in partial fulfillment
of the requirements for a degree of
Master of Science

Department of Psychology
Memorial University of Newfoundland
April 1982

St. John's

Newfoundland

Abstract

This research was concerned with the influence of the cultural identity of a person on the level of help received. Two experiments were conducted. In the first experiment two experimenters, one French and one English, randomly selected subjects from the streets of 2 cities and 8 towns in New Brunswick and Quebec. Three hundred and eighty-four people were selected. They were asked questions about their language usage and about their place of residence. The dependent measure of helping was the willingness of the people to spend 15 to 20 minutes answering the questions. Subjects were adults, males or females, by themselves, getting out of a car. To be included as subjects they had to 1) speak either French or English most often at home, 2) live in the locale in which the interview was conducted, and 3) have the same home language as the majority for the location. The second experiment had the same independent variables but used a non-reactive dependent measure, the lost letter technique. To represent cultural identity, letters bearing either French or English addresses were lost in the same areas where the interviews took place. The results of the live interviews were not as anticipated, i.e., there was neither ingroup favoritism nor equal level

of help for both experimenters. The English experimenter obtained more help than the French from both populations and also obtained significantly more help from the English population than from the French population. The French experimenter received significantly less help overall and for him there were no significant differences between the populations. A number of possible explanations are proposed for these results. The first ones are methodological. Since only one experimenter of each cultural identity was used, the personality effects were weakly controlled. The experimenters might also have applied, differentially, the sampling procedure. A second reason is a cultural one. It could be that both populations perceived the English as a higher status person. Urban size influenced the level of help differentially, the French population was more helpful in cities, the English population in towns. For equally urbanized populations this particular pattern is hard to explain. The lost letter technique failed to provide significant results. This was probably because the control over the cultural identity of the subjects was weak. The difficulty of arriving at a strict definition of cultural identity and of finding representative members of each identity (French or English) are proposed for the equivocal results.

Acknowledgements

I would like to thank the people who have helped me to complete this work, my advisor, Dr. A. S. Ross whose patience was tested and appreciated during all the stages of this thesis, also the other members of the committee, Mr M. Grant and Dr. T. Hannah, for their helpful comments.

I would like to thank Gower Bradshaw, for his time and efforts, who as my assistant in the field made it possible for me to complete the experiment as originally planned.

Mr Randy Dodge, system manager for Computing services, got me out of a fix many times. Without his help I would probably be still sitting in front of a 'dead' terminal...

Finally I would like to thank the staff of the Memorial University library, especially the librarians who answered promptly and expertly my numerous questions.

TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	1
Altruism and helping behavior.....	4
Cultural identity, related concepts, ethnicity, language.....	14
Cultural identity and altruism/ helping behavior....	17
Urban space, size and population density.....	20
Cities and helping behavior.....	25
Cities and cultural identity and helping behavior...	29
Overview.....	32
Experiment one. Method.....	34
Experiment two. Method.....	41
Experiment one. Results.....	44
Experiment two. Results.....	66
Discussion.....	68
References.....	87
Appendices.	
A. Pilot for experiment one.....	94
B. Data recording form. Page one (English).....	95
C. Data recording form. Page one (French).....	96
D. Data recording form. Page two.....	97
E. Sequence of locations.....	98
F. Block diagram for the province of Quebec.....	99
G. Block diagram for the province of New Brunswick....	100
H. Sample French letter.....	101
I. Rationale for the selection of the locations.....	102
J. Explanation of log-linear model, conditioning, marginal- and partial association.....	106

LIST OF TABLES

	<u>Page</u>
Table 1 The questions asked to the subjects.....	35
Table 2 Variable names and symbols used in the analysis.....	45
Table 3 Contingency table showing the percentage of people helping and the total number of people asked for each level of the four independent variables (live interviews).....	47
Table 4 Test one.. Significant interactions (in contingency table four) with four independent variables and one dependent one..	49
Table 5 Test two. Contingency table with three independent variables (province variable collapsed).....	52
Table 6 Test three a). Analysis on the data for the French experimenter alone. (Contingency table with 3 independent variables).....	55
Table 7 Test three b). Analysis performed on the data for the English experimenter alone. (3 independent variables).....	56
Table 8 Test four a). Analysis for the French population alone. (3 independent variables).....	58
Table 9 Test four b). Analysis for the English population alone.....	60
Table 10 Test five a). Analysis for Quebec alone.....	61
Table 11 Test five b). Analysis for New Brunswick alone.....	64
Table 12 Contingency table of results for the five variables showing the percentage of people helping for each level of the independent variables (lost letters).....	67

Table 13	Percentage of people accepted for the live interviews out of the total of the persons met.....	71
Table 14	Population by mother tongue for Canada and Provinces, 1976 Census.....	103
Table 15	Population by mother tongue for NB city, New Brunswick and Qué city, Quebec.....	104
Table 16	Population by mother tongue for towns in New Brunswick and Quebec.....	105

LIST OF FIGURES

	<u>Page</u>
Figure 1. Decision-making process of altruistic behavior.....	10
Figure 2. Helping as a function of community size and language.....	51
Figure 3. Percentage of help received by the English experimenter in cities and towns in each province.....	57
Figure 4. Percentage of each population helping in cities and towns in Quebec.....	63
Figure 5. Percentage of each population helping each experimenter.....	65

Introduction.

1

Although ethnicity, for a number of years had been dismissed as a social force with which to contend, we have seen in the recent past a resurgence of the expression of ethnic feelings at the subnational level in many countries. "The desire to remain in some sense a part of an ascriptive group, is still part of modern man's culture" (Petersen, 1979, p. 4). We have an example of this phenomenon here in Canada, where the split between French and English is said by some, to threaten the existence of the country.

"Canada and its constitutional system is in a protracted state of crisis" the Pepin-Robarts Task Force on Canadian unity concluded, in 1979. (The Task Force on Canadian Unity. A future together: Observations and recommendations, 1979. Cited in Laxer, 1979, in preface). This is only one of the latest in a long list of reports on the conflict that has been plaguing the country since before its foundation.

This conflict results from the antagonism existing between the two founding nations the French and the English. Today, even with the intermingling of the populations, the two cultural groups still exist and retain enough of their original identity and distinctiveness to keep the debate

alive. A crucial feature of this continuing antagonism is the fight over language use, language of schooling, language of communication etc.

But intergroup relations, as portrayed in the media may create an impression of greater negativity than really exists. Even though this reporting may factually reflect the events in different spheres of national activities, (politics, fan confrontation at sporting events, controversy over the use of the French language in aviation traffic control in 1975-76, etc.) it remains a partial view. (Media reporting, with its emphasis on the negative side of events as more newsworthy, is partly responsible for this image.) If we limit ourselves to an appreciation of the state of affairs between the two groups at a general level, whether or not we have grasped the essential features of their relations is open to question. Inkeles and Levinson, (1969) advise us to study behavior of individuals across national character instead of relying only on global assessment of respective attitudes towards each other. Contact between individuals of the cultural groups may reveal a different, more positive relationship.

For example this testimony from a French Quebecer travelling in the western provinces:

Les gens [les Anglais] dirigeaient plutôt leur hostilité contre le Canada français dans son ensemble et non pas contre moi en tant que l'un de

ses représentants. (Montreal Star, October 6, 1976. Cited by Bériault, 1977, p. 169).

There is, then, the possibility of a discrepancy in the assessment of the relations between cultural groups depending on the particular level at which we choose to focus.

Since any resolution of the recurring conflict will probably be at the political level and involve the two cultural groups as a whole it may not be deemed important to know how individuals interact on a personal level. Most approaches to this cross cultural problem have underplayed the importance of the behavior of individuals of the two major cultural groups when they actually meet each other. We want to raise the question of whether or not interactions at the individual level are simply echoing whatever the national ethos happens to be. Or, are individual interactions testimony to the tremendous varieties of interpersonal behaviors out of which we may have falsely fashioned a simplistic and perhaps unrealistic national image. In this thesis this point of view will be explored by focusing on a field of psychology which has been extensively researched: altruism/helping behavior. The extensive previous research which exists is an advantage in that it permits the selection and specification of the features of a behavioral event best suited to explore the question.

Altruism and Helping Behavior.

The concepts of altruism and helping are related in that helping behavior is a subset of the general class of behaviors called "altruistic". Of three recent books, Bar-Tal (1976), Wispé (1978), and Rushton (1980) all agree on a minimum definition of altruistic behavior as "behavior apparently carried out in order to benefit another." (Rushton, 1980, p. 7).

Of the three, Wispé (1978) would make the most restrictive use of the term altruism, when compared to helping. "Altruism refers to self-sacrificial behavior in the grand manner; helping research has investigated those bits of every-day behavior by which social bonds are reinforced" (p. xiv-xv). Bar-Tal (1976) equates all voluntary behavior that is carried out to benefit another, without anticipation of external rewards and is performed for its own end with altruism. Similar behavior from "a recipient who tries to reciprocate the previously received help and the behavior of a harmdoer who tries to compensate his victim" (p. 7) is called restitution. Together they come under the heading of prosocial behavior. Rushton (1980) holds a middle ground. Instead of dichotomizing the concepts he sees them as falling along a continuum, with helping/ aiding at one end and altruism, behavior "in which

the outcome is maximized for another, even at the expense of the self" (p. 8) at the other end.

We will first present a brief overview of the theories concerning the roots of altruism to set the theoretical background for helping behavior.

Many causes of altruism have been posited. They can generally be divided into biological, sociocultural, and the psychological. For Wispe (1978) it is part of human nature and its genetic make-up. Hoffman (1981) also proposes that altruism is part of human nature. He presents evidence "from biology and psychology... for the acquisition of altruistic... structures in humans." (p. 121) with the further specification of a flexible mediator to altruistic responses, empathy. A different order of biological explanation would be one by Danielli (1980) who postulates an internal reward system, for altruistic acts "activated by prior conditioning or evolutionary preparation releasing mood-controlling substances in the brain or perhaps elsewhere in the body" (p. 87).

Altruism "creates problems for the behavioral scientist" (Wispe 1978, p. 304). American psychology has been influenced by reinforcement theories of behavior which

are based on the notion that actions are posed by an organism 'pulled' by the variable probability of positive or negative reinforcement (see Schwartz, 1977, p. 226). The notion that an organism would act against its own individual self-interest, that it might act for the benefit of another without positive rewards for itself and even the possibility of harm does not fit naturally into this paradigm. Cohen (1978) argues that the altruistic paradox is resolved at the cultural level not at the biological. Campbell (1978) is in agreement with Cohen's (1978) view stating that "self sacrificial dispositions... are in man, a product of social indoctrination counter to rather than supported by genetically transmitted dispositions" (p. 41).

A related view is one by those who take a social learning approach to altruism. They would argue that altruism is learned like any other behavior acquired throughout the development of man. Bar-Tal (1976) and Rushton (1980) for example review evidence pertinent to this point. Both conclude that "parents are vitally important agents of socialization [for altruism in particular] for their children." (Rushton, 1980, p. 132).

At the psychological level, Krebs (1978) argues that the influence of the person and the milieu, in interaction, are fundamental. Furthermore personal variables should not

be limited to the most superficial but should investigate the meaning of the acts, the implicit rules of conduct and the "normative structure of social expectations that guide social behavior" (p. 147). Krebs outlines an approach to solve the problem called cognitive developmental or structural, associated with Piaget (1960) and Kohlberg (1969, 1972):

Cognitive developmental theory treats concepts like altruism as products and tools of reasoning. The idea of altruism exists because it symbolizes a set of social phenomena. People's idea about altruism evolve with cognitive development. (p. 152).

His particular focus is on the "significance of altruism as an aspect of moral obligation" (p. 155-156):

People do not passively wait for situations to affect them; they actively seek out and construct situations that are appropriate to their level of development. It is integrated patterns of behavior that characterize people, not isolated acts. (p. 157).

Arguments about the precise name to be given to a particular act can become involved if antecedent internal conditions influencing the behavior such as the possibility of internal pressures to act, degree of selflessness required, the expectations of future reciprocity, etc. are brought in. Without denying the importance of the study of these conditions I would prefer to go along with Rushton (1980) when he argues that discussions to conclude if true altruism exist have been fruitless, since one can make a

judgment on the apparent quality of an act but not on the exact motivation of the actor. For these reasons I will restrict the definition of helping to observable behavior, i.e., whether or not a subject is willing to spend time to answer a number of questions. This will avoid the problem of deciding whether or not a behavior is really altruistic based on the inferred intentions and reasons of the persons performing the act.

In this thesis we are interested in the different outcomes of a situation where the performance of helping behavior is an option rather than in the hypothetical constructs given as explanation /antecedents of altruism. It will suffice for our purpose to know that even if the explanation for altruism and altruistic acts lacks a unified point of view, the existence of altruism itself does not seem to be questioned.

Since the study aims to investigate the level of positive interaction existing between individuals belonging to each of the two cultural groups, a behavioral measure should be appropriate. Helping behavior will provide that measure.

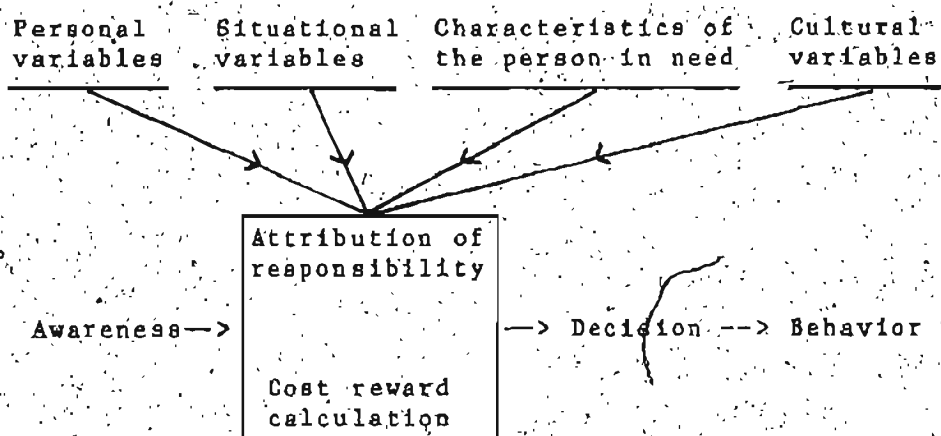
A number of psychological steps are necessary before

the actual helping act takes place or not. Bar-Tal (1976) gives a good picture of the actual decision-making process and the various factors that impinge upon it. The common elements of helping behavior that we find in most of the literature on helping are represented in Figure 1.

Weiner's (1980) model while acknowledging "that there are as many determinants of helping as there are sources of motivation" (p. 197) focuses mainly on the following sequence of events, first internal to the person followed by overt behavior which comprise a helping act. This is represented in the following model of helping behavior divided into a three step process: 1. attributional analysis, cause of the need (especially controllability), i.e., if the person requesting help had control over the event(s) leading to the request; 2. bystander affective reaction; 3. overt behavior.

Meyer and Mulherin's (1980) investigation, "explore[d] further the applicability of Wiener's attributional model of motivation" (p. 203) by means of questionnaires probing the hypothetical behavior of the subjects faced with various conditions of causality, and found confirmatory evidence for it.

Triandis (1976) and Rosenhan (1978) have identified



The judgmental process

Figure 1. Decision-making process of altruistic behavior.

Note. From Prosocial behavior: Theory and research by D. Bar-Tal. New York: John Wiley & Sons, 1976.

three components of helping: affect, self-reinforcement and cognition. Triandis' model in its entirety is very comprehensive, taking into account attributions about others behavior, one's own previous behavior, habit, others action, facilitating conditions, differences in interaction potential, and individual differences. But basically it consist of the same elements as Bar-Tal's model.

Schwartz (1977) (p. 223) focuses more narrowly on three types of explanations to account for the link between exposure to the need of another and the initiation of intention to help: 1) arousal of emotion, 2) arousal of social expectations, 3) arousal of self expectations. He acknowledges that the three are not mutually exclusive and that they can contribute in combinations to the decision. The second one is governed by norms and values imposed by society. Whether or not one conforms to their requirement is part of the cost-reward calculation shown in Bar-Tal's (Figure 1). The third is also governed by norms, but in this case personal norms which may even run against the immediate self interest of the person.

Although Bryan and Test (1975) focused on "self-sacrificing" behavior their model is applicable to less demanding acts of non emergency helping. They propose three hypotheses regarding the situational determinants: 1.

compliance to a norm of reciprocity, where individuals will provide aid to others even though they may not have received help from them in the past because they expect reciprocal behavior on their part; 2. social responsibility norm, where dependency on others evokes helping responses even when the possibility of external rewards for the helper are remote; 3. the presence of helping (or non helping) models, where the tendency to help will be higher for people who have observed someone doing a helpful act. As with Schwartz (1977) the role of norms seems essential, in two cases out of three at least.

Darley and Batson (1973) state that personality variables would be appropriate to include if we are interested in the different forms helping behavior can take but that the decision to help or not is situationally controlled (the second group of variables of influence in Figure 1).

Some authors while acknowledging the multiple determinants of the helping act seem to put more emphasis upon the personal decision power of individuals (Personal variables in Figure 1). Others give more importance to pressures that arise from the social environment (even if internalized).

As Schwartz (1977) says "a plethora of variables" have been studied as antecedents for helping behavior "few of those related to each other in any coherent way" (p. 223). Krebs (1978) rejects a purely situational study of altruistic behavior (his point is relevant to the more restrictive notion of helping) on the ground that the list of possible variables could be extended indefinitely. Indeed a number of papers reviewed were, taken globally, no more than an accumulation of sometimes ingenious but ultimately superficial variations on a theme which in itself did no more than add footnotes to a point already made that variations in situations lead to variations in helping.

Krebs (1970) also recognizes the difficulty of an integrated perspective. But in a review paper, he nevertheless offered an organizational framework for the variables associated with altruistic behavior cross classified along the two dimensions of characteristics of the persons involved and the level of generality. (Again although he focuses on altruistic behavior I believe his review is applicable to helping acts):

The first dimension of classification then, separates variables which relate the characteristics of benefactors that cause or correlate with altruism from the altruism eliciting characteristics of recipients.... Independent variables can also be classified according to their level of generality. Research on altruism has manipulated independent variables at four more or less distinct levels of generality. The first level involves temporary psychological states... The second level of

generality involves personality traits... At the third level - that which involves social roles and demographic variables such as social class, age, and sex - the level of generality is even greater... The final level, which deals with social norms, is the most general of the four (pp. 262-263).

Our interest in dimension one concerns characteristics of both benefactor and recipient. In dimension two our interest goes beyond simple situational variables to include level of group affiliation and nationality.

Our interest stops below the level of social norms which as Krebs (1970) states "are so general that they supply no information about the variance in incidences of altruism" (p. 263). However even at that level it may be possible to encounter cross cultural differences. The norms of helping might dictate different actions according to the type of situations, persons involved etc.

Cultural Identity, Related Concepts, Ethnicity, Language.

A question to be considered is how the concepts of cultural identity, language, and ethnicity, are related and what their relevance is in contacts of people of different cultures.

Language is a crucial component of cultural

distinctiveness. "Language is the most evident expression of culture, and, in turn, a cultural identity revolves around and is maintained by shared language" (Laxer, 1979, p. 25). It is a most prominent feature in a verbal exchange between individuals or groups of different mother tongues when they actually encounter each other in day to day activities.

Giles, Taylor, and Bourhis (1977) found through a multidimensional scaling procedure with Welsh students that language even took precedence over cultural background and geographical region for personal identity. But they also found that with increases in intracultural group communication other factors besides ethnicity became more salient.

Taylor, Bassili, and Aboud (1973) in another multidimensional scaling study, this time with French Canadians and English Canadians, again found the importance of language. However in the case of the French Canadians cultural background played a very important role also, more so than for the English Canadians. The French Canadians, being a minority in North America, have felt more acutely the need for a common bond to preserve their collective identity. This is achieved through nationalistic feelings based on a shared culture. Edwards (1977) defines

nationalism as "an extension of ethnicity or as Baron (1947) has put it, 'as organized ethnocultural solidarity'" (p. 254).

Laing (1976) acknowledges the relative imprecision that has developed in what was the historically well defined ethnic identity of our ancestors, who first settled on this continent. Because of vast movement and intermingling of populations the terms 'French' and 'English' are bound to cover a somewhat heterogeneous group of individuals. Still, he finds that a "respondent's self definition of their ethnic membership [does] show a high correlation with the corresponding ethnic attributes" (p. 44) and that overwhelmingly the language spoken at home, the language spoken best is the one of their cultural group.

Language will play an important role in cueing the stereotypes we have developed to apprehend a set of inferred qualities of a group or of a representative individual of the group. While stereotyping is cognitively economical it also conceals individual differences. Language identifies people and is used as a way of linking them with a perceived stereotype which then affects their interactions.

Cultural Identity and Altruism/Helping Behavior.

One concept which links culture to altruistic/helping behavior is the distinction which most people make between ingroup and outgroup. Krebs (1970) cites work by Friedrichs (1960), Campbell (1965), and Hornstein, Fisch and Holmes (1968), which supports the idea of ingroup affiliation as an elicitor of altruism.

Altruism remains, we believe, circumscribed socially, limited to a group significant for the person, e.g., immediate family and only in rare cases including all individuals indiscriminately. Hardin (1977) concurs, "In large groups enlightened egoism is the most powerful motive" (p. 27). Tajfel (1978) demonstrates that classification by subjects of people into ingroup and outgroup occurs on the basis of the most trivial consideration.

An example of this minimum requirement for the establishment of distinction between people is provided by Pearce (1980). He found, in an experiment where he travelled by bus across the United States, that strangers when they can identify each other, even if only because of facial familiarity, having seen each other on the vehicle are more willing to help than when they cannot identify each other. It seems logical that if the identification is based

on stronger, more personal bonds the readiness to help would also be stronger. Triandis (1976) proposes that amount of help is correlated with feeling of responsibility to ingroup members. This distinction among people becomes even more crucial if it is accompanied by economic competition either potential or actual with the outgroup which is the case for the French and English in Canada.

Feldman (1968) in a series of five experiments on helping, in Paris, Athens and Boston found differential rates of helping depending on ethnicity (compatriot versus foreigner) and language used. In Paris and Boston, fellow countrymen received more help but the foreigners (all were strangers) were treated better in Athens (p. 202). That Greeks, in Feldman's study, were more helpful to foreigners than to unknown compatriots points to the fact that categorization does not necessarily follow only cultural lines. In this particular case, the rationale for categorization was the greater power of interpersonal attractiveness due to similarity or high prestige.

Another example of group categorization occurring along other than cultural lines is presented by Berkowitz (1966). In a laboratory experiment investigating national differences in helping behavior, he effectively found that the economic background influenced level of helping. But it

is difficult to draw conclusions from this study about the relative strength of the cultural and economic factors across cultures, since he could only study intracultural variations due to the differences between the test for the two national groups. Mann, and Taylor (1974) examined the causal attributions made by French Canadians and English Canadians for behavior of members of their ingroup and for outgroup members. The results show that the English made greater use of social class information in their attributions. The French however put more emphasis on ethnic differences.

Karpieni and Zippel (1974) found no ethnic differences when an experimenter assuming an Irish or Italian identity, by using a name of the proper consonance phoned people of either identity, also identified by their family name and their middle class background by means of the phone book, and asked for help in answering a mailed in questionnaire. They interpret this result to mean that social class of the requester not his ethnicity is more important in getting help. However, it is possible that the manipulation of ethnic identity was not strong enough for subjects to use it as a basis for deciding whether or not to help.

To complicate matters further there is evidence that the same person may use different types of information in

his judgment of persons depending on whether or not they belong to his ingroup. Aboud and Taylor (1971) studied the relative importance of ethnic and role stereotypes in person perception. They found "a pattern of outgroup perceptions involving the use of ethnic stereotypes predominantly and ingroup perception relying on role stereotypes" (p. 22). So for example, in a situation which may require giving help an outgroup member will be judged on his ethnic membership but an ingroup member will receive help or not to the degree that his social "standing" compels /demands it. This should be a cautionary note that the persons in need of help may not be judged on one unique dimension.

Still Hanson and Slade's (1977) experiment, using the lost letter technique (Milgram, Mann, and Harter, 1965) found that the number of letters returned was lowest for a deviant, i.e., a person whose address indicated that he was, for example, a member of an extremist political party, or owner of a night club. If we can assume a similar psychological categorization for ingroup-outgroup and deviant-nondeviants, these results help to show the generality of the process.

Urban Space, Size and Population Density.

Helping behavior has also been studied extensively in

relation to environmental factors. Cunningham (1979), for example found that the weather (degree of sunshine, temperature, humidity) influenced level of helping. Of the more stable, permanent environmental features, the rural-urban dichotomy (Hanson and Slade, 1977; Feldman, 1968) has been studied in relation to helping. Urban size and population density seem to be the most immediate attributes that, separately or in interaction, contribute to the distinctive influence of cities.

One of the earliest modern attempts at a systematic understanding of urban phenomena was by the Chicago school in the 1920's, of which L. Wirth was a notable figure. In his article in the American Journal of Sociology (1938) 'Urbanism as a way of life' he saw three factors at the root of urban differentiation: size, density, and heterogeneity. They are the elements that "mark it [the city] as a distinctive mode of human group life" (Wirth, 1964, p. 62).

Wirth's view still has advocates today such as Milgram (1970) who still sees number, density, and heterogeneity as the "root of any sociopsychological theory of city life for they condition all aspects of our experience" (Milgram 1970, p. 1461). In Wirth's basic proposition he sees the need to interpose a necessary psychological mediator between what are only "demographic factors" and the individual. His

concept, taken from system analysis, is "overload". "City life is the result of encounter with overload and the resultant adaptation" (p. 1462).

Sadalla (1978) also thinks that the factors identified by Wirth have some validity. In the 1978 article he reviews evidence that the size of urban center in itself has important social and psychological consequences. Increase in size, by itself would lead to a higher degree of structural differentiation, consequently influencing social behavior of city dwellers. He lists four consequences: anonymity, deindividuation, deviance, and personality development.

But Wirth himself in a later work "On cities and social life" (1964) even though he clings to his three factors first elaborated in the 1938 article acknowledges some of the later criticisms it received by qualifying his original views. He admits that variations between rural and urban personality are the two ends of a continuum, that there is no abrupt change as we move from one end to the other; that with the greater possibility for communication and transportation the influences of cities has spread to the countryside; the urban way of life may not be confined to actual residence in a city.

He also brings some valuable points of a more technical nature. These remarks should be a warning about our uncritical adoption of census definitions as being the important features for people in their daily life. For example, the census definition of the city is an administrative concept; the census enumerates the night rather than the day population of an area. Patterns of residence (the night population) may be fairly clear but during the day time the citizens of different sections of the urban area converge on the working sectors erasing the nightly division existing across ethnic and/or social class lines. There is danger of confusing urbanism with industrialization and modern capitalism as Dewey (1960) criticized him of doing. The great diversity of cities among themselves would also have to be considered.

Dewey (1960) saw Wirth's original propositions as a failure to distinguish between demographic influence, on the one hand, density and size of population, and influence of culture, on the other hand. Unlike cultural factors, demographic facts may have universal influence that are not time bound. Nevertheless he finds that density and variations in size induce five concomitant variations in the qualities of life. But they are not all-or-none propositions; they vary along the rural urban continuum. They are 1. anonymity, 2. division of labor, 3.

heterogeneity, 4. impersonal and formally prescribed relationships, 5. symbols of status which are independent of personal acquaintance.

Kirmeyer (1978) brings out the interesting point that urban in-dwelling density, may in fact, be less than the rural one. Urban density is only higher when we consider its greater number of dwelling units per surface area. Only the second definition of density has been used in the literature reviewed so far. It may not be the most important one.

Poplin (1972) is critical of the whole enterprise of the study of urban phenomena. The rural/urban concept can be identified with hundreds of variables, not only size and density, ecological characteristics, but also legal status, sociocultural characteristics or predominant economic activity. The nature of their hinterlands makes a difference. In fact he dismisses the urban/ rural dichotomy since he proposes that the urban way of life is no longer dependent on place of residence, that the "entire population of the United States" is urbanized (pp. 43-44), that nowadays the differences are only a matter of degree, that the basic features of American society, individualism for example, have penetrated into all communities.

Cities and Helping Behavior.

The results concerning the relation between urban size, population density, and helping are equivocal, some studies find less helping in the city, some find more.

Among the authors who find less helping in the city, Amato (1981) measured level of help in urban and rural settings in Australia and the United States. The request for help was from a person who seemed physically in pain and would fall on the sidewalk. The rates of helping were higher in the towns than in the cities in both countries.

Rushton (1978) in a study of urban density and altruism set in the Canadian environment found an inverse relationship between density and help giving, the bigger the urban community, the less help a stranger got to a request. He advanced two hypotheses to account for his data. One, that people in cities are "socialized differently" (p. 989) than are people in smaller communities in consideration for others. His second hypothesis is similar to Milgram's (1970) proposition (p. 990) that stimulus overload leads people to shut out stimuli of secondary importance, i.e., all the ones not required to perform the action, for example getting from point a to point b, in which they are engaged.

Stern, (1973) in telephone interviews found that the smaller urban centers showed more helpfulness. But he notes that the socioeconomic status of respondent may have been a more important determinant than the variable of degree of urbanism in determining the helpfulness of subjects in a particular city.

Holohan (1977) argued that personal and situational variables have been confounded since urban subjects have been studied only in urban environments and rural subjects only in smaller agglomerations or in the country. Using students from home towns of different size he "administered a scale which measured their judgment of the appropriateness of helping responses" (p. 379) varying size and heterogeneity of environments, and urgency and degrees of risk involved. His results offer evidence that:

The reported unwillingness of the urbanite to lend a helping hand is more a function of situational factors and of interactions between situational and subject variables than of subject characteristics alone (p. 381).... and are not internalized and broadly generalized as norms of non responding (p. 382).

Kamman (1979) using the lost letter technique found that "immediate pedestrian density is the more reliable predictor of non helping behavior than city size" (p. 248). The diffusion of responsibility model potentially accounts for virtually all of the data.

House and Wolf (1978) reanalysing the data from census of the United States between 1952 and 1972, assuming compliance to a request for an interview to be helpful behavior, found according to their expectations that the rural residents were more helpful than the city residents but that these reported differences between urban and rural residents, were due more 1. to behavior than attitudes i.e., are situation specific rather than stable feature of individuals; 2. that differences in helping behavior between places of residences have become significant only in the last twenty years or so, and 3. that these differences are tied to fluctuations in level of criminality rather than to the variables we associate with urbanism, population size, density, and heterogeneity.

Among those who find more helping among urban residents, Weiner (1976) in a laboratory experiment, tested subjects from rural or urban residence on a high or low overload task combined with an unforeseen (to the subjects) request for help. She found that the rural and urban group differed either on task performance or on amount of helping. In the low-overload condition the rural group was less helpful but there was no difference in the task performance. In the high-overload condition there was no difference in amount of help between the groups but the task performance of the rural group was worse than for the urban group. She

concludes that the personality variables influence the predispositions to help, that situational variables influence its initiation and that both interact with a potential helper's "experiential world" (p. 123).

A study, by McKenna and Morgenthau (cited in Milgram, 1970) also contradicts the stereotype of the uncooperative urban resident. In long distance telephone calls urban residents getting requests for information gave a higher level of help than small town residents.

Weinberger with Glass (1981), in a field study on helping in the prototypical big city, New York, found that people were willing to get involved with strangers beyond answering a trivial request for direction and such (there was no comparison to smaller urban locations).

Contrary to Weiner (1976), Milgram (1970) denies that the differences are due to "intrinsic differences in the personalities of rural and city dwellers" (p. 1465) but contends that it is only a short term, reversible, adaptive response.

Korte (1978) reminds us of the great diversity and complexities of urban space. While his own assessment of experimental results so far is that they support the

hypothesis of urban unhelpfulness (p. 87) he considers two limitations of these findings:

1. the conceptualization of urbanization, which ignores crucial variations and complexities related to urban form such as differences within a single urban environment and between urban environments in different cultures and
2. the failure to identify the particular factors that are influencing the level of helpfulness and mutual aid (p. 89).

It is somewhat difficult to draw a general conclusion about all these findings, whether urban environments influences are internalized or not, temporary or permanent, positive or negative in relation to helping behavior. At least it seems evident that there is no simple relationship between helping behavior and urbanism. Given the absence of clarity surrounding the concept of urbanism this is not surprising.

Cities and Cultural Identity and Helping Behavior.

The variables of cultural identity and urbanism will, each on its own, and in interaction influence the level of help for people confronting each other. We review here authors who have studied their mutual interactive influence on helping.

Milgram (1970) suggests that ethnic allegiance may well be another means of coping with overload in urban areas.

"The city dweller can reduce excessive demands and screen out urban heterogeneity by responding along ethnic lines... overload is made more manageable" (p. 1463). This should be relatively easy when the physical features and/or differences in dress are obvious, less so when the differences are less apparent, at the level of language for example. In such a case the relevant information would only be provided once the interaction is underway. Milgram reports an unpublished experiment by Gaertner and Bickman (done in cities only) where white or black persons phoned for help. More help was given along ethnic lines than across.

Hanson and Slade's (1977) experiment using the lost letter technique found greater help in small towns compared to urban centers except when the person in need of help was a deviant on a social dimension. In that case the differential helping rates between the locations all but disappeared. Whitehead and Metzger (1981) replicated Hanson and Slade's study using affiliation with a homosexual organization as a measure of deviancy. Their results are similar to the previous authors; return rates of letters were higher for non deviants.

Weiner (1976) mentions that the degree of identification with the requester may weigh more heavily in

the decision to help or not, for rural residents as opposed to urban residents (the experiment was done in the laboratory using rural and urban reared college students).

On the contrary Edwards (1977) reports studies by Fishman (1966) that greater discrimination along cultural lines would mainly occur in the larger urban centers:

Ethnic self-awareness and nationalistic feelings are urban phenomena... Urban environments are more likely to be those producing individuals and groups concerned with language maintenance and revival. (p. 278).

So the interaction of residence and ethnic allegiance may contribute to alter the relation between community size and helpfulness. Results from the laboratory and from the field, show that ethnic knowledge of the persons involved in the helping act will modify its occurrence or magnitude. A person's cultural experience is an essential element of his/her personality, one which will always be manifest in the presence of others and even when by himself/herself it will still shape his/her way of thinking and acting. In summary some studies suggest more helpfulness in urbanites due to greater indifference to cultural diversity or to cognitive complexity (Weiner, 1976). Some, on the contrary, suggest less helpfulness on the part of the urbanites due to overload selectivity management along cultural lines.

Overview.

It is proposed that the level of altruism/helping behavior is affected by the characteristics of the persons involved in the helping situation, as requesters or as persons being asked for help and by the type of environment in which the request takes place. In the present experiment the relevant characteristic of the person is their cultural identity as revealed through their language and the type of environment is the urban size. Given the lack of clarity around the concept of urban size its effect will be examined but no prediction is made concerning its effect.


Two experiments were conducted in which the willingness to be of assistance, of members of the two cultural groups towards each other, was assessed: in one experiment this was done by live interviews; in the other, used to provide corroborating evidence, it was done with the lost letter technique (Milgram et al, 1965). The independent variables were the language in which a request for help was made, the language of the respondent, and where the request was made. The locations were cities and towns in New Brunswick and Quebec. The method involved two experimenters, one bilingual francophone and one bilingual anglophone, meeting persons on the street and asking them a few questions about their language usage and their place of residence. The

dependent measure was the willingness of people to answer questions put to them by a member of their own cultural group (ingroup) or by a member of the other cultural group (outgroup).

In the second experiment the lost letter technique provided an unobtrusive method of behavior assessment. Letters bearing only an address and a stamp but not post marked were 'lost' in different locations. The behavioral measure was number of letters mailed back. Whether the decision to mail the letter or not is influenced by the identity (French or English) of the person to whom it is addressed should be reflected by the differences in return rates.

In both experiments if the popular image of the relationship between the two cultural groups, supported by findings in the literature such as Tajfel (1978), is accurate we should find in our results that ingroup members give more help to ingroup members than to outsiders.

On the other hand if there is no significant difference between the level of help received by each experimenter it would tend to support the opposite view that individual interactions will be more positive than accounting at the group level would predict.



EXPERIMENT 1

Method

Subjects. A pilot study was done as practice, and to establish the amount of time to request of the subjects (see Appendix A for details). A total of 384 persons were asked for help. People judged to be 18 years old or older, who were alone and had their hands free, were approached, and asked for help, as they got out of a car.

Evaluation of potential subjects. A decision was made that the experimenters would always ask the initial question in the language of the location in which they found themselves and that only subjects who answered, at least the first and second questions properly, would count towards the goal of reaching the required number of subjects in each location. Proper answers to the two first questions meant that a) the subject lived in the community, and b) that their main language at home was the same as the language of the area we were working in. The list of questions is shown in Table 1.

Nevertheless every subject's answers were recorded in sequence even if they were not of the proper cultural identity and/or location or if they could not be identified on these variables.

Table 1

The Questions Asked of the Subjects

1. What language do you use most often in your home? French or English.
2. Do you live in this city, (town)? Yes or no.
3. How long have you been living here? (in years).
4. Of the languages you understand which one did you learn first? English or French.
5. What language do you most often use at work when talking to a) your fellow workers, b) your supervisor?
6. In what language did you receive your instruction at primary school? French or English.

Selection of locations. Ideal situations being non-existent in demography as elsewhere, disparities occurred between locations in ratio of French speakers to English speakers, size of communities, distances between locations, distance between small towns and cities, ratio of urban to rural populations in the two provinces, etc. Locations selection was based on 1976 census data information about language (Statistics Canada, 1979). However in that year only one question was asked about mother tongue: "The first language learned by children and still spoken or the language of the home whether the person has learned it or not (e.g., infants)" (Kralt, 1980, p. 18). This question may not reflect accurately the contemporary language usage of the persons. These are only some of the most obvious disparities that might have influenced the relationship between the two cultural groups.

Heeding the information supplied by Giles, Bourhis, & Taylor (1977) about the variables that influence the vitality of ethnolinguistic groups, locations were sought which were inhabited by sufficient numbers of people of each identity for them to achieve a kind of 'critical mass' necessary for their existence as cultural groups. For the two cities a population of around 50,000 was sought, each inhabited by French people and English people in approximately equal number. (See Appendix I for additional

information on city selection, and Table 15 showing the population breakdown for the French and the English in the cities.)¹

For the small towns (population 3 to 6 thousand) we chose to equate on the number of speakers of each language across towns instead of within towns. This was done because not enough communities had proportions of English and French of sufficient size to make it practically possible to meet the required number of subjects of each cultural background within one town. We therefore selected four towns in each province, two majority French communities and two majority English ones. To keep the cultural identity variable salient we also required that the towns have at least 100 persons of the opposite mother tongue. The towns selected and their populations are presented in Table 16 in Appendix I.

Procedures. Two experimenters were used, one bilingual person whose mother tongue was French and one bilingual person whose mother tongue was English. Both were from the province of Quebec but they were not evenly matched in their

¹The original intent had been to avoid the downtown areas, expecting the mix of cultural identities to be greater there. However, they had to be used as on residential streets it would have taken too much time to meet the required number of subjects.

ability to use their second language, the French experimenter being more fluent than the English one. To avoid a sequence effect the locations were visited twice, once while travelling from Quebec to New Brunswick and once while coming back to Quebec.

In each of the two cities 64 subjects were to be met, 32 from the predominantly French enumeration areas and 32 from the English enumerations areas. Each experimenter was to meet 16 subjects in each location, always asking the questions in the majority language of the enumeration area.

In each of the eight towns 32 subjects were to be met, 32 in two French communities and 32 in two English communities in Quebec; the same thing was to be done in New Brunswick. Again, each experimenter was to meet 16 subjects in each location, always asking the questions in the majority language of the enumeration area.²

²The total number of subjects aimed for was changed from 480 to 384 once the experiment was underway. Thereafter the intention was to have 16 subjects in each location but this could not always be done. The actual number of subjects in each location may vary slightly due to the limited amount of time that could be spent in each location, in which cases the sessions may have been terminated before the required number was reached. (See block diagrams in Appendices F and G for the actual numbers.)

Both the live interview and the lost letter experiments were conducted concurrently. To minimize experimenter bias and to keep subject selection constant in the two experiments, the subjects were to be people getting out of their car, by themselves. At the start of an experimental session the first person doing so was to be randomly assigned to experiment one or two, i.e., a subject for an interview or for a lost letter.³

The second potential subject was assigned to the other experiment (the lost letter if a live interview had just occurred or vice versa). The third potential subject was again randomly assigned to either experiment and the fourth one to the alternate and so on until the required minimum number of subjects had been reached for the location.

The standard format used throughout was to request assistance (in French or English depending on the location) for a survey in the following fashion; "Excuse me Sir/Ms. I'm doing a survey on cultural identity. I would like to ask you a few questions. This should only take 15 or 20

³ It was not always possible to alternate the experiments like this. Some areas could not be used to lose the letters: too many people watching, people parking in front of the stores where they went shopping, etc.

minutes of your time. Do you agree?"⁴

If the respondents agreed the initial questions were asked in the order shown below (see defining the subjects answers).

Answers were sought to at least the first and second questions to establish the cultural identity and place of residence of the subjects. Whether or not we proceeded to the other questions depended on the answers to the first two. If they were appropriate, i.e., a subject of the same cultural identity as the location we were working in (same home language) and residing in the city or town, we proceeded, if the subject was willing, to ask the rest of the questions (for a complete list of the questions see Appendix B [in English], Appendix C [in French]).

Defining Subjects' Answers. The classification of subjects as helping or not helping was based on the following decision sequence:

1. Is the person of the proper cultural identity?
Yes/no.

⁴ In the experiment only ethnic information was meant to be provided at the initiation of contacts with subjects. But in cases where subjects wanted to know more about us before making their decision to help or not we did volunteer that we were university students (i.e. role information). So some subjects had both type of information available.

2. Is the person living in the city or town? Yes/no.
3. Is the person willing to answer all the questions? Yes/no.

If the answers were yes to all the questions the subject was classified as a helper. If the answers were yes to one and two only, the subject was classified as a non helper. If the answer was no on either of the first two the subject was dismissed. In cases where the subjects refused to answer any questions and so did not provide the relevant information, they were classified arbitrarily as non helpers of the proper cultural identity and location. A relatively high number of those cases, non randomly distributed might have altered the results. However since we actually got only 14 of these cases or less than four percent of the total, they were eliminated from the analysis. (Appendices B, C, and D contains the forms used in data recording.)

EXPERIMENT 2

Method

In this experiment helping behavior was to be measured by the 'Lost letter technique' (Milgram et al, 1965). The dependent variable is a subject's willingness to go to the trouble to mail an apparently lost letter which has been stamped and addressed but has not been post marked. The

rationale for this experiment was to provide a separate, unobtrusive measure of helping behavior.

Procedures. In each location the same number of letters were to be lost as the number of subjects in the live interview, half of those by each experimenter, half in each location (French or English, as determined by the census) and half while travelling in one direction and half while coming back. In fact losing the letters inconspicuously during the day proved to be very difficult and time consuming. For these reasons we decided to terminate this particular experiment after having done half the trip (going one way only). Also one town in Quebec and two towns in New Brunswick proved too small to effectively carry out this experiment in them.

Material. The letters were standard white envelopes, each of which bore a 17 cents stamp and an address with no return address. The address itself was either written all in French or all in English, including an addressee with a French name, in the first case and an English name in the second. The address was always the same, a post office box in St. John's. See samples below.

Jacques Martin
Boîte postale 1283
Succursale C.,
St. Jean, Terre Neuve
AIC 5N9

John Martin
P.O. Box 1283
Station C.,
St. John's, Newfoundland
AIC 5N9

In case the envelopes were opened they contained a vague message about a request for information which was typed in the appropriate language. See sample of English letter below. (A sample of the French letter is included in Appendix H). A coding number was typed on the envelopes to identify them as to location where they were lost, by whom, on what day etc.

Sample English letter.

[English address]

Dear John,

Thanks for your interest in our organization.
We will soon send you the information you request.

Sincerely,
William Hays

Experimenters were to try to distribute the letters at relatively equal distance from mail boxes or post offices to equalize the amount of effort finders would have to extend

to provide help to a stranger. However, this did not prove feasible. In small towns, the layout did not lend itself to such a balanced 'design', and the post offices were one of the few places where there was enough traffic to make it possible to do the subjects in a reasonable time.

Approximately a month and a half after the end of the experiment the numbers of letters returned was calculated and an analysis similar to the one for the live interviews was performed.

EXPERIMENT 1

Results

In this experiment there were four independent variables: cultural identity of the experimenter, cultural identity of the population, urban size, province, and one dependent variable, help.

The independent variables of main interest were the cultural identity of the experimenter (CULTEXP) and the cultural identity of the population (CULTPOP) (see Table 2 for a list of the variables). The urban size (URBNSIZE) and the province (PROVINCE) variables were of secondary interest because, as we have seen in the review of the literature,

Table 2

Variable Names and Symbols Used in the Analysis

Variables	Names	Category
cultural identity of the experimenter	CULTEXP	French experimenter English experimenter
cultural identity of the population	CULTPOP	French population English population
Urban size	URBNSIZE	city town
Province	PROVINCE	Quebec New Brunswick
Help	HELP	yes no

Note. The variable names are used in the tables for conciseness.

the precise influence of urbanism has yet to be worked out satisfactorily and because province was considered to be a demographic variable whose contribution it was important to evaluate but which was not expected to add greatly to the variance.

As Bishop, Fienberg, and Holland (1975, p. 31), Everitt (1977, p. 70), and Upton (1978, p. 42) note, a multiway table should not be collapsed into a series of two way-tables before the presence or absence of interactions at the higher levels is assessed.

The results were tabulated initially in a contingency table cross classified for the five variables of help, cultural identity of the experimenter, cultural identity of the population, urban size, and province (see Table 3).

The results were analysed with the Biomedical Computer Programs, P series, (1979). The program appropriate for analysis of contingency tables is P3F, multiway frequency tables, the log-linear model (Brown, 1979, pp. 297-332).⁵

The computer analysis provides two chi square values.

⁵ Programs developed at the Health sciences computing facility, UCLA. Health sciences computing facility is sponsored by NIH special research resources grant RR-3.

Table 3.

Contingency Table Showing the Percentage of People Helping and the Total Number of People Asked for Each Level of the Four Independent Variables. (116 interviews)

PROVINCE	URBNSIZE	CULTPOP	CULTEXP	HELP %helping Tot.	
Quebec	city	frnchpop	frnchexp	47%	(17)
			englsexp	47%	(15)
		englspop	frnchexp	21%	(14)
			englsexp	53%	(17)
	town	frnchpop	frnchexp	30%	(33)
			englsexp	61%	(31)
		englspop	frnchexp	41%	(34)
			englsexp	82%	(34)
NBrsnwck	city	frnchpop	frnchexp	38%	(13)
			englsexp	65%	(17)
		englspop	frnchexp	40%	(15)
			englsexp	60%	(15)
	town	frnchpop	frnchexp	38%	(32)
			englsexp	48%	(29)
		englspop	frnchexp	47%	(32)
			englsexp	63%	(32)

This is to help select the interactions of borderline significance which might be rejected outright otherwise:

The test of any effect in a log-linear model depends on which other effects are included in the model. Therefore no single test determines the relative importance of an effect. Brown (1976) suggested the use of two tests --marginal and partial association-- to screen effects. (Brown, 1979, p. 303).

By using these two tests simultaneously effects can be classified as needed, not needed and indefinite (if they are significant for one test but not the other). (See Appendix J for further explanations).

The first analysis was done to determine where the significant interactions, if any, occurred. The significant figures and borderline cases ($.05 < p < .10$) will be presented (see Table 4).

Further analyses were done after collapsing or conditioning on some of the variables. Conditioning is similar to controlling for the levels of a variable as explained in Blalock (1972, p. 302 and following). (See Appendix J for details).

The results will be presented, starting with the five variables, with successive collapsing or conditioning of subsets of the original four independent variables.

Table 4

TEST ONE. Significant Interactions (in contingency table four) with Four Independent Variables and One Dependent One

A test of partial association of the factor.				A test of marginal association of the factors.	
Effect	df	lr chisq ^a	prob. p<	lr chisq	prob. p<
HELP by CULTEXP	1	20.73	.0001	20.57	.0001
HELP by CULTPOP by URBNSIZE	1	3.70	.0544	3.37	.0665

^a lr chisq is likelihood ratio χ^2 or G^2

In the first analysis there are two significant effects on help, first of the cultural identity of the experimenter, and second of the interaction between urban size, and cultural identity of the population. In the first case the French experimenter was helped significantly less (38%) than the English experimenter (62%).

The second interaction indicates that the French population was slightly more helpful (50%) than the English population in cities (44%) but in towns the French population was less helpful (44%) than the English population (58%) (see Figure 2).

As the variable province did not interact significantly and interprovincial differences were of secondary interest it was collapsed onto the other variables and the analysis rerun (see Table 5).

The probability levels, for the remaining variables after collapsing, stay the same as in test ONE. Only the cultural identity of the experimenter by itself, and the cultural identity of the population by urban size interaction affect the level of help significantly.

Again since urban size was only of secondary interest we wanted to see how the variables of main interest were

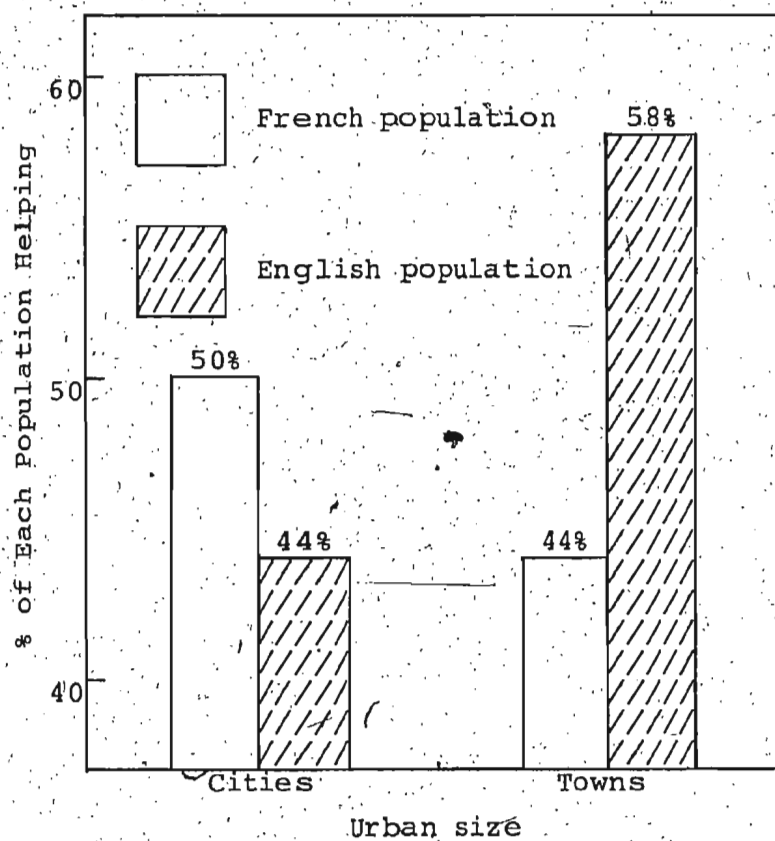


Figure 2. Helping as a function of community size and language.

Table 5

TEST TWO. Contingency Table with Three
Independent Variables (province collapsed)

URBNSIZE	CULTPOP	CULTEXP	HELP %helping Tot.	
city	frnchpop	frnchexp	43%	(30)
		englsexp	56%	(32)
	englspop	frnchexp	31%	(29)
		englsexp	56%	(32)
town	frnchpop	frnchexp	34%	(65)
		englsexp	55%	(60)
	englspop	frnchexp	44%	(66)
		englsexp	73%	(66)

A test of partial asso-
ciation of the factor.

A test of marginal asso-
ciation of the factors.

Effect	df	lr chisq	prob. p<	lr chisq	prob. p<
HELP by CULTEXP	1	20.72	.0001	20.57	.0001
HELP by CULTPOP by URBNSIZE	1	3.66	.0557	3.37	.0665

affected when it and the province variable were collapsed at the same time. Also to see if the variable urban size would show some significance when the other effect were discounted, the variables of cultural identity of the population and province were collapsed in subsequent tests. None of these manipulations provided new information.

The main effect of the cultural identity of the experimenter was of overwhelming importance in the significant results so far. In fact, as we will consider in the discussion section we can only be certain that some characteristics of the experimenters made a difference in the level of help obtained. To draw the conclusion that it was their cultural identity that was responsible is hazardous.

Since there were significant differences between the experimenters in the level of help obtained but no interaction between the cultural identity of the experimenters and the cultural identity of the populations, separate analyses were conducted for each level of these variables. In P3P this is called conditionning (see Appendix J). No variables were collapsed prior to these tests. The analysis is done for the French experimenter first then for the English experimenter (see Tables 6 and 7).

The French experimenter, by himself, did not produce any significant effect (see Table 6). The lowest probability is due to the interaction of population, and urban size and it is not significant.

While there was no significant effect for the French experimenter by himself there was a trend for the English experimenter for the interaction of urban size and province (see Table 7). The English experimenter did better in Quebec towns than in the city, 72% against 50% in the latter. But he did better in the New Brunswick city than in the towns getting help 63% of the time in the former but only 56% of the time in the latter (see Figure 3). His results also show a trend for cultural identity of the population with the French population tending to help less than would be expected, 55% of the time and the English population tending to help more, 67% of the time.

We repeated the analysis above this time using the cultural identity of the population as the conditioning variable. The analysis was done for the French population first and then for the English one, (see Tables 8 and 9).

When the French population is considered by itself (Table 8) the only significant effect is due to the cultural identity of the experimenters, the French population giving

Table 6

TEST THREE a). Analysis on the Data for the French Experimenter Alone. (Contingency table with 3 independent variables)

PROVINCE	URBNSIZE	CULTPOP	HELP	
			%Helping Tot.	
Quebec	city	frnchpop	47%	(17)
		englspop	21%	(14)
	town	frnchpop	30%	(33)
		englspop	41%	(34)
NBrnswck	city	frnchpop	38%	(13)
		englspop	40%	(15)
	town	frnchpop	38%	(32)
		englspop	47%	(32)

Table 7

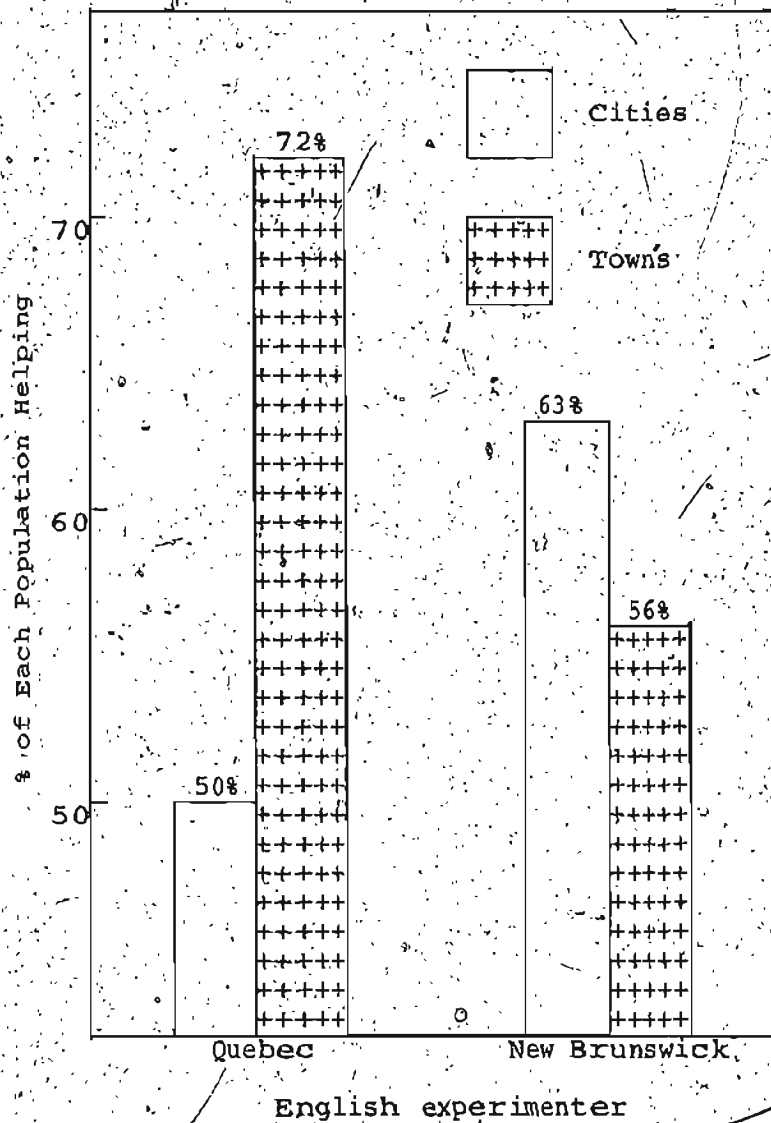
TEST THREE b) - Analysis Performed on the Data for the English Experimenter Alone. (3 independent variables)

PROVINCE	URBNSIZE	CULTPOP	HELP %helping Tot.	
Quebec	city	frnchpop	47%	(15)
		englsppop	53%	(17)
	town	frnchpop	61%	(31)
		englsppop	82%	(34)
NBrsnwck	city	frnchpop	65%	(17)
		englsppop	60%	(15)
	town	frnchpop	48%	(29)
		englsppop	63%	(32)

A test of partial association of the factor.

A test of marginal association of the factors.

Effect	df	lr chisq	prob.	lr chisq	prob.
HELP by CULTPOP	1	2.74	.0980	2.85	.0913
HELP by URBNSIZE by PROVINCE	1	4.11	.0426	3.87	.0491



English experimenter

Figure 3. Percentage of help received by the English experimenter in cities and towns in each province.

Table 8

TEST FOUR a). Analysis for the French Population
Alone. (3 independent variables)

PROVINCE	URBNSIZE	CULTEXP	HELP %helping Tot.
Quebec	city	frnchexp	47% (17)
		englsexp	47% (15)
	town	frnchexp	30% (33)
		englsexp	61% (31)
NBrsnwck	city	frnchexp	38% (13)
		englsexp	65% (17)
	town	frnchexp	38% (32)
		englsexp	48% (29)

A test of partial asso-
ciation of the factor.

A test of marginal asso-
ciation of the factors.

Effect	df	lr	chisq	prob.	lr	chisq	prob.
HELP by CULTEXP	1		6.43	.0112		6.54	.0105

less help, (37%) to the French experimenter, than to the English experimenter (55%). These results parallel those found in the overall test reported in Table 4 and Table 5.

We repeated the analysis for the English population.

Again the effect of the cultural identity of the experimenters is significant with the English population giving less help to the French experimenter, (40%) than to the English experimenter, (67%) (see Table 9).

The English population is more helpful in towns than in cities, giving help only 44% of the time in cities but 58% of the time in towns.

To investigate whether there might exist interprovincial differences in what had been assumed to be a shared cultural identity for the French population and the English population an analysis was done for the province variable. The analysis was done for the province of Quebec first then for the province of New Brunswick (see Tables 10 and 11).

The results for the province of Quebec (Table 10) parallel the results of tests one and two. The population in Quebec gives more help to the English experimenter, (65%)

Table 9

TEST FOUR b). Analysis for the English Population Alone

PROVINCE	URBNSIZE	CULTEXP	HELP %helping Tot.	
Quebec	city	frnchexp	21%	(14)
		englsexp	53%	(17)
	town	frnchexp	41%	(34)
		englsexp	82%	(34)
New Brunswick	city	frnchexp	40%	(15)
		englsexp	60%	(15)
	town	frnchexp	47%	(32)
		englsexp	63%	(32)

A test of partial association of the factor.

A test of marginal association of the factors.

Effect	df	lr chisq	prob. p<	lr chisq	prob. p<
HELP by CULTEXP	1	15.33	.0001	14.70	.0001
HELP by URBNSIZE	1	3.96	.0476	3.32	.0684

Table 10

Test FIVE a). Analysis for Quebec Alone.

URBNSIZE	CULTPOP	CULTEXP	HELP %Helping Tot.	
city	frnchpop	frnchexp	50%	(16)
		englsexp	47%	(15)
	englsop	frnchexp	21%	(14)
		englsexp	53%	(17)
town	frnchpop	frnchexp	30%	(33)
		englsexp	61%	(31)
	englsop	frnchexp	41%	(34)
		englsexp	82%	(34)

A test of partial association of the factor.

A test of marginal association of the factors.

Effect	df	lr chisq	prob. p<	lr chisq	prob. p<
HELP by CULTEXP	1	17.07	.0001	16.91	.0001
HELP by CULTPOP by URBNSIZE	1	3.56	.0593	2.61	.1061

than to the French experimenter (36%). There is also an effect for the interaction between cultural identity of the population, and urban size, although it is significant only for the partial association test, and not significant ($p > .10$) for the marginal one. The French population is approximately as helpful in the city as in the towns (32% vs. 31% respectively), but the English population is less helpful in the city than in the towns (28% vs. 38% respectively) (see Figure 4).

The same test was repeated for the province of New Brunswick (Table 11).

For the province of New Brunswick the only significant effect was due to the cultural identity of the experimenters. Again the French experimenter got less help (29%) than the English experimenter (37%). The results of main importance in the experiment, concerning the effect of populations, and experimenters on helping are summarized in Figure 5. The results as presented are taken from Tests 3 a, and 3 b. They are shown on the same Figure but they do not represent a two way interaction of cultural identity of the experimenter by cultural identity of the population on level of help obtained.

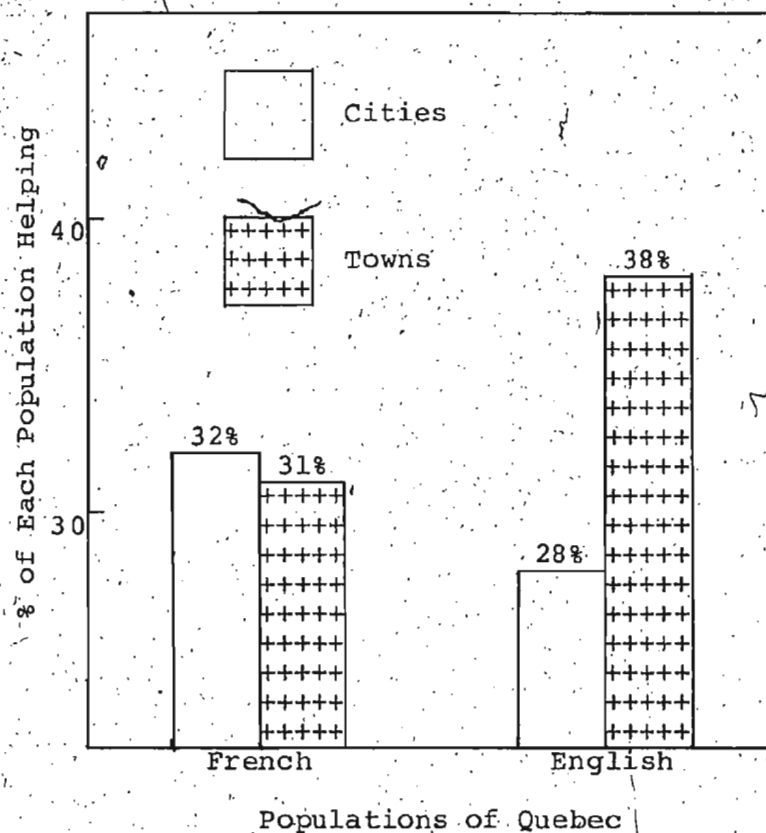


Figure 4. Percentage of each population helping in cities and towns in Quebec.

Table 11

TEST FIVE b). Analysis for New Brunswick Alone

URBNSIZE	CULTPOP	CULTEXP	HELP %helping Tot.	
city	frnchpop	frnchexp	38%	(13)
		englsexp	65%	(17)
	englspop	frnchexp	40%	(15)
		englsexp	60%	(15)
town	frnchpop	frnchexp	38%	(32)
		englsexp	48%	(29)
	englsexp	frnchexp	47%	(32)
		englsexp	63%	(32)

A test of partial association of the factor.

A test of marginal association of the factors.

Effect	df	lr	chisq	prob.	lr	chisq	prob.
HELP by CULTEXP	1	5.21	.0224		5.22	.0223	

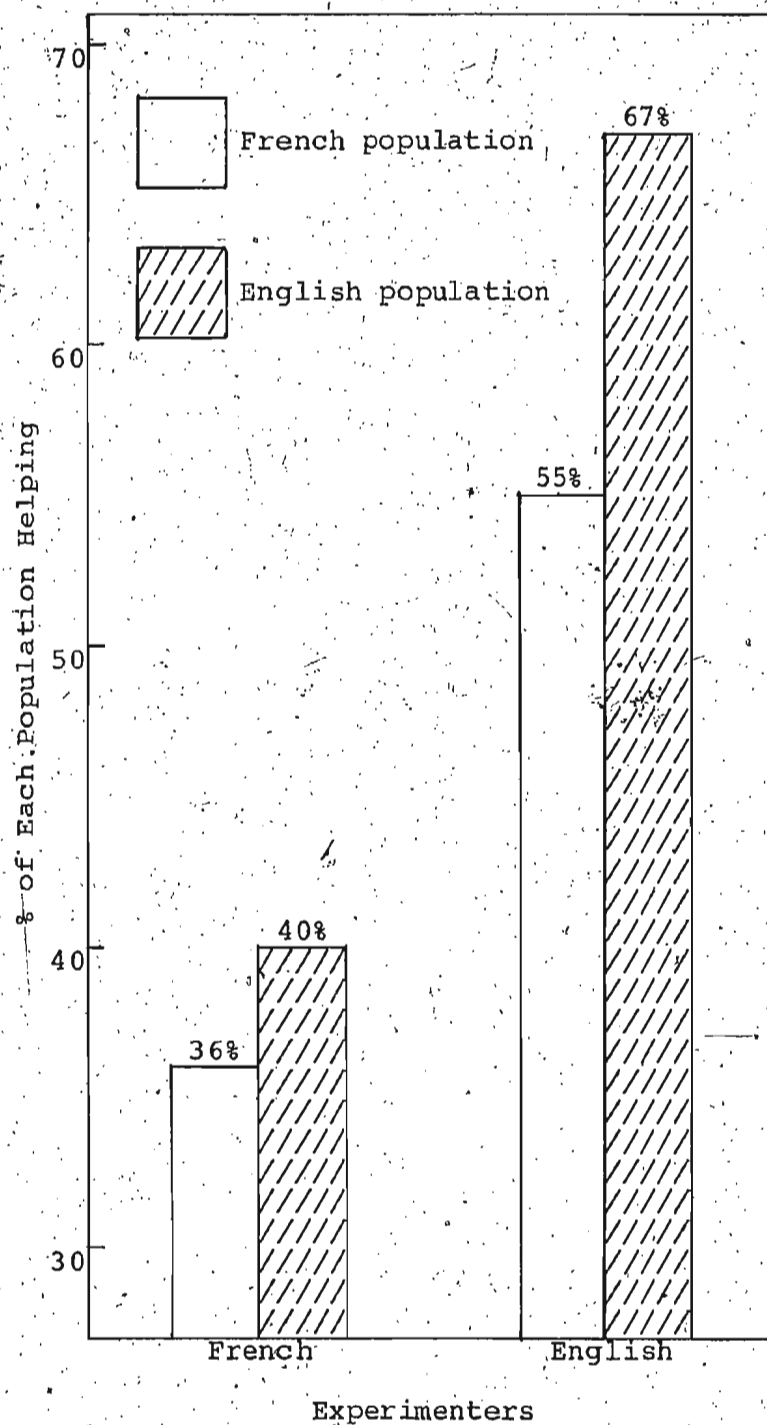


Figure 5. Percentage of each population helping each experimenter.

EXPERIMENT 2

Results

In this experiment there were four independent variables: cultural identity of the address on the letter, cultural identity of the population, urban size, and province, and one dependent variable, number of letters returned.

The rationale for this experiment and the type of analysis performed on the data were exactly the same as in experiment one. The one change was in the use of the letters, addressed either in French or in English, as representing the cultural identity of the person requesting help. This variable was represented by the symbol CULTLET in the tables.

The results were tabulated in a contingency table cross classified for the five variables of help, cultural identity of the letter, cultural identity of the population, urban size, and province (see Table 12).

All of the same analyses were performed on the data, as in experiment one. No significant results were obtained in any analysis.

Table 12

Contingency Table of Results for the Five Variables
Showing the Percentage of People Helping for Each
Level of the Independent Variables (lost letters)

PROVINCE	URBNSIZE	CULTPOP	CULTLET	HELP %helping Tot.	
Quebec	city	frnchpop	frnchlet	60%	(10)
			englslet	60%	(10)
		englsipop	frnchlet	60%	(10)
			englslet	50%	(10)
	towns	frnchpop	frnchlet	70%	(10)
			englslet	60%	(10)
		englsipop	frnchlet	72%	(18) ^a
			englslet	66%	(18) ^a
NBrunswick	city	frnchpop	frnchlet	75%	(8)
			englslet	88%	(8)
		englsipop	frnchlet	50%	(8)
			englslet	88%	(8)
	towns	frnchpop	frnchlet	50%	(8)
			englslet	88%	(8)
		englsipop	frnchlet	88%	(8)
			englslet	75%	(8)

^aTwo English towns were done in Quebec. One where 10 letters of each cultural identity were lost and one where 8 letters were lost. In New Brunswick only one English town was done where 8 letters of each were lost.

DISCUSSION

In the introduction two possible outcomes were considered. The first one was that there would be no difference between the level of help received by each experimenter for each respective population. This would support the contention that interactions at the individual level, even when only cultural information was available to the subjects, could be more positive than past global assessment lead to believe, i.e., no discrimination along cultural lines. The second possible outcome was that there would be a difference in the levels of help received by each experimenter from each population. This would add to the findings already pointing to the phenomena of group discrimination. Unfortunately the results are not so clear cut as to permit a confident choice between those two alternatives.

The result of major importance in Experiment 1, the live interviews, is that there exists a strong main effect between the experimenters, the English experimenter obtaining more help overall than the French experimenter (see Figure 5). This result is less interesting than an interaction between the cultural identity of the experimenter and that of the population would have been.

✓ The results obtained are open to two types of explanations, one that they are due to cultural phenomena and the other is that they are a methodological artifact.

The more prosaic explanation is that the results have a basis in methodology, either personality differences or different sampling techniques between the experimenters. In terms of personality, that the French population, like the English, would give more help to the English experimenter could be due to some personal characteristics which made him better able to solicit and obtain more help.

The other possibility, sampling bias, can be evaluated by examining the number of persons rejected in each location because they did not satisfy the language and/or the residence criteria. A test similar to test one was done, with the one change that the dependent variable of helping was replaced by a dependent variable, acceptability, of whether or not a person was accepted or rejected as being suitable for interviewing. The following categories were used: accepted, the sum of all the people approached who agreed or refused to be interviewed (the sum of the yes and no categories of the help variable); rejected, the sum of all the people with which we interrupted the interview after realizing that they did not satisfy one or both of the criterion. These data and the significant results are

④

presented in Table 13.

Two results are easily interpretable. One, for the effect of the experimenter on acceptability, we see that the number of rejects for the French experimenter is much higher than for the English. For the same number of people actually interviewed by each (190) the French experimenter rejected more than twice as many people (206 vs. 98) as the English experimenter. The reason for this is, I believe, simply a divergence in sampling procedure, i.e., in the strictness with which each experimenter applied the criterion at each step of the decision sequence used to select subjects. For example the English experimenter may have accepted as potential subjects people who lived near a location but not in it, or who had recently moved out. For whatever other reasons if he was more lax in acceptance of subjects it is possible that his number of rejected subjects would be lower. This might be tied to a differential helping rate. (Such speculations are based on informal talks between the experimenters throughout the three weeks of the experiment).

The second result, acceptability by cultural identity of the population by province, is only of technical interest. We see that the subjects belonging to the minority in each province (English in Québec, French in New

Table 13

Percentage of People Accepted for the Live Interviews
out of the Total of the Persons Met

PROVINCE	URBNSIZE	CULTPOP	CULTEXP	Acceptability	
				%Accepted	Tot.
Quebec	city	frnchpop	frnchexp	68%	(25)
			englsexp	63%	(24)
		englsop	frnchexp	29%	(48)
			englsexp	63%	(27)
	town	frnchpop	frnchexp	60%	(55)
			englsexp	86%	(36)
		englsop	frnchexp	44%	(77)
			englsexp	73%	(52)
NBrnsweck	city	frnchpop	frnchexp	28%	(47)
			englsexp	46%	(37)
		englsop	frnchexp	56%	(27)
			englsexp	83%	(18)
	town	frnchpop	frnchexp	45%	(71)
			englsexp	58%	(50)
		englsop	frnchexp	70%	(46)
			englsexp	76%	(42)

A test of partial association of the factor.

A test of marginal association of the factors.

Effect	df	lr chisq	prob. p<	lr chisq	prob. p<
ACCEPTABILITY by CULTEXP	1	22.59	.0001	22.09	.0001
ACCEPTABILITY by CULTPOP	1	34.65	.0	36.99	.0
ACCEPTABILITY by PROVINCE					

Brunswick) are rejected more often, 70% of the cases for the former, 75% of the cases for the latter, than subjects of the majority population. This is likely since it would be more difficult to find proper subjects from a smaller population than from a bigger one.

An explanation based on cultural factor could be that if we assume that the English experimenter represented a higher status person than the French, then psychological categorization by the subjects would not favor the ingroup member but the higher status person, the English for both populations. This is similar to Feldman's (1968) explanation for the Greeks' better treatment of foreigners than their unknown countrymen.

Lambert, Hodgson, Gardner, and Fillenbaum (1960) found results, supporting such a possibility by using the "matched guise technique". This technique used tape recorded voices of bilingual persons reading a text in one language or the other. From these passages subjects were asked to infer a number of qualities of the persons. They were unaware that the same person had been recorded in different languages.

Lambert et al used a group of French Canadian and English Canadian university students. Not surprisingly the English Canadians showed a bias in favor of the English

guises but what should be less expected is that the French Canadians showed the same positive bias towards the English Canadian guises compared to the French Canadian guises. The French Canadian judges' rating of voices representing their own cultural group was even lower than the ratings by the English Canadian judges. Apparently the lower status granted the French Canadians was (at least in the early sixties, when the experiment was done) internalized by themselves as true.

These findings can be proposed as a (partial) explanation for the higher level of help given by both the French and the English populations to the English experimenter. He may have represented a higher status person. Thus the willingness/ desire to help him might have been stronger than for the French experimenter.

The data from Lambert et. al (1960) are relatively old. It might have been expected that the evolving political and economic situation among French Canadians, (Quebecers mainly) has modified the relationship between the two cultural groups, that the status inequality has been attenuated if not removed completely. For example the comparative social status of the French and English might have shifted in the last 20 years due to the emergence of increasingly nationalistic governments, and protest

movements in Quebec. However the present results suggest that that is not correct.

Another aspect of the results beside the fact that the French experimenter obtained less help from both populations is that there was also no significant difference in the level of help he got from either the French or English. This specific result conforms to our hypothesis that the strife existing between the two cultural groups would not necessarily be reflected at the level of individuals. As far as the French experimenter is concerned the French and English population are equally helpful (or unhelpful).

The English experimenter, on the contrary obtained significantly more help from people from his own cultural group than from the French population. This result, compared to the one for the French experimenter, appears to be paradoxical in that it is more easily explained by taking the view opposite to the preceding one about the absence of difference in cross cultural helping. For the English experimenter the French and English populations can be differentiated on their willingness to help.

To summarize the discussion so far, looking at the overall results for both experimenters it remains that even

if the English experimenter received more help from the English population than from the French population, at the same time both populations give more help to the English than to the French as shown in the test controlling for the population variable.

So either individual interactions between the two cultural groups disclose a more positive or at least neutral state of affairs than what could be predicted from the social context as shown by the results for the French experimenter. Or status differences permitted the English experimenter to receive overall more help from both cultural groups as shown by the results for the English experimenter; unless a third option could somehow integrate both. Unfortunately the results are equivocal. A replication, using several participant-experimenters of each cultural identity could help to solve this problem, by minimizing the effects of the personality, and/or idiosyncratic interpretation of the procedures of the single experimenters of each culture actually used.

When the influence of urban size is examined the results show that it interacts a) with the cultural identity of the population, and also b) with the province variable.

In the first case we found that overall, the French population was more helpful in cities than in towns and that on the contrary the English population was more helpful in the towns than in the cities. This conclusion is further supported, but for the English population only, by the result of the test which looked at each population separately. The French population by itself did not produce such an interaction.

For the English experimenter it appears that urban size interacts with the province variable so that in Quebec he received more help in towns than in the city but that on the contrary in New Brunswick he received more help in the city than in the towns. Although the French experimenter by himself did not produce such an interaction.

Urban size seemed, then, to influence level of help given or received, through interaction with the cultural identity of the population or of one of the experimenters. As in the case of the first interaction of significance the pattern is not self evident. My review of the literature, in preparation for this experiment does not suggest why one cultural group would show overall more helpful behavior in one type of environment (cities) and the other group in another one (towns). Perhaps literature on cross cultural studies applied to more diverse groups would provide

instances of such interactions. It would remain to be seen how such a finding could be applied to the cultural groups studied here, which have achieved, I believe, comparable levels of urbanization. This applies also in the case of the interaction of the experimenter and urban size.

Another point is that in the present experiment the cities were only of a population size of about 50,000. In most experiments in the literature that size represents a small agglomeration. Holohan (1977) for example in his experiment classifies locations of less than 50,000 of population as small.

Province. The only significant influence of the province variable is in its interaction with the urban size influencing level of help received by the English experimenter which I discussed above.

Problems of interpretation. I would like to review some of the weaknesses of the experiment and propose some possible remedies.

One of the most evident weak points in the design is the fact that only one experimenter of each culture was used.

It is difficult to untangle what personal characteristics are responsible for the differences in helping level between them. Financial constraints placed limitations on the number of experimenters who could be used. Unfortunately the English experimenter generated, by himself, such strong interactions that they may have obliterated more subtle, complex ones. This possibility was foreseen at the start of the experiment. But it was hoped that, by trying to match experimenters on sex, age, physical appearance (dress and build), and educational background, differences between them would mainly occur in interaction with the cultural identity of the population, and also that the other experiment with the lost letter technique would help to corroborate the results of the main experiment.

There is another aspect of the problem with the experimenters which is not specific to this experiment but can occur whenever the commitment of the persons involved varies. The study was conducted by the author and a student from another university hired for the duration of the experiment (3 weeks). It is evident that the interest of the two in the project was very different. While the author had a personal stake in the success of the experiment, the partner was probably more neutral towards any results obtained. The research on experimenter bias may be relevant. As Rosenthal (1969) states:

While the other attributes of the experimenter affect the subject's response, they do not necessarily affect these responses differentially as a function of the subject's treatment condition. Expectancy effects, on the other hand, always do.... The experimenter's expectancy of how the subject will respond does change as a function of the subject's treatment condition.

We might have unwittingly differentially influenced the responses of subjects although we never reviewed the accumulating data during the experiment so we were not aware of any developing trend in the results.

The problem of the research assistant is referred to as 'hired hand' research by Roth (1975). A hired hand is a person whose task is simply to carry out the instructions given to him. He may not be asked to make a personal contribution to the experiment but to simply follow orders. He may become negligent, preoccupied only with getting results that will satisfy his employer. Roth concludes:

The results of research done in part or wholly by hired hands should be viewed as a dubious source for information about specific aspects of our social life or for the raw material for developing broader generalizations. (p. 392).

It is possible that these differences toward the project, from the two experimenters, may be responsible for some of the variance in the results.

The most likely solution to the problem of experimenter differences would be to increase the number of experimenter-participants of each cultural group as suggested earlier.

However, this is by no means the perfect solution since we would be increasing the number of hired hands.

Field experiment. I have relied on arguments, such as the possibility of achieving greater mundane realism, greater external validity etc. as a justification for the use of a field experiment format. Some degree of control over all aspects of the experiment such as procedure, selection of subjects, etc. is lost but it is hoped that the greater impact of the manipulation compensates for this. Retrospectively it does not seem so obvious that a field experiment should be preferred over a laboratory experiment. A close accounting of the trade-offs involved may not favor the field setting as a better environment to test our hypothesis. Also the day to day uncertainties in the field, e.g., rain, inadequate settings to meet subjects, sparse number of subjects, make one wish for the relative security and predictability of the laboratory.

The practical necessity of a certain degree of simplification in either setting, the laboratory or the field, makes it difficult to achieve a sufficiently fine discrimination of people and groups relative to the cultural variable. What we have dichotomized as two distinct,

homogeneous cultural groups may in fact be better represented on a continuum. The typical interaction between experimenters and subjects was planned to emphasize cultural variables to the detriment of other factors. It obviously was not completely successful.

One of the unstated assumptions in this experiment is that the people of the two cultural groups share a number of equivalent, if opposite social, cognitive orientations to their cultural identity, and how they relate to their own group; or in their phenomenological categorization of an event such as meeting a stranger asking for help on the street. This assumption of equivalence, if true, would make our results, level of help given by each cultural group toward members of its ingroup or the outgroup, easily comparable in the sense that we could assume a similar meaning for a similar action.

There is evidence that this presumption of equivalence may not be correct. Taylor and Simard (1975), Christian, Gadfield, Giles, and Taylor (1976), and Taylor and Guimond (1978) all found, as expected, that the identity of the French and English are indeed different and unique to each group. But also the French Canadians are more prone to "categorize the social milieu along ethnolinguistic lines", that they were "consistently more ethnocentric than their

English counterpart" (Taylor and Guimond, 1978, p. 18).

This greater importance of cultural differences for French Canadians can be further specified since this particular ethnic group could be broken down into two distinct subgroups: a "nationalistic group" and a "traditional group". The second one is more like the English Canadians in identifying with Canada as a whole rather than a specific region or province.

We see that the two groups differ in the respective importance they give to cultural information when coming into contact with strangers. The English seem to make less use of that type of information, the French more. We see also that the French may differ among themselves in their propensity to use cultural information.

Associated with these differences in ethnic identification is the possibility that groups may differ in their adherence to the norm of reciprocity. The setting and type of request were standardized although they varied along predetermined lines (counterbalanced for cultural identity, size of cities, etc.). However, each group may have different, non-equivalent norms which constrain it to respond in different ways in a helping situation.

In addition the languages (French and English) in the two provinces probably have a number of features which may lead people to differentiate even among those who share a common language. There may be three or four cultural groups instead of two. Giles (1977) states "Language will refer to any linguistic features or set of features (e.g., dialects, accents, words) which an ethnic group values or uses in making itself distinctive from a competing group." (p. 3).

Cultural identities may not only be more differentiated than assumed but they may also be more complex, less well defined. For example a bilingual person because of his adoption, more or less voluntarily, of another cultural group language may then alter his relationship to that group. As Giles (1977) states, referring to a chapter by Taylor, Meynard, and Rheault, "acquiring the language symbolic of an outgroup can detract from ones own feelings of ingroup identity." (p. 5).

There may also be cognitive differences linked to membership to one group or the other. Lieberman (1970) states:

The importance of race and ethnic relations is also implicit in the view of language as a collection of symbols which influence social behavior.... If language influences cognition, then ethnic groups with distinctive tongues may respond differently in the same social situation. (p. 7).

It is possible that the experimental event that was designed to test cross cultural helping was perceived, interpreted and reacted to, differently by the two groups.

Even the assumption of similarity of cognitive processes would not free us completely from difficulty, since people might still use different information in the perception of ingroup or outgroup members. Aboud and Taylor (1971) show that when information about roles and ethnic identity is available cross cultural perception falls "into a pattern of outgroup perception involving the use of ethnic stereotypes predominantly and ingroup perception relying on role stereotypes" (p. 22).

From the preceding arguments and from my own results, we see that the concept of cultural identity and associated norms of behavior may not only be hard to define, it may be difficult to classify people in clear cut, mutually exclusive categories. In that case the amount of overlap should be considered and this is assuming a case where we could identify only two poles of cultural identity. More complex situations of multiple identity might exist. All these variations in political allegiance, degree of bilingualism, differences in norms, difference in cognitive apprehension of events, complexity of cultural identity, if not recognized and identified add up to 'noise', obscuring

the relationship of primary interest. These problems call for more specific definitions of the groups investigated and of the technique for finding representative members.

The lost letter technique. The lost letter technique did not supply any significant results. The reasons are more methodological than experimental. Following Shotland's (1978) suggestion about the importance of an adequate distribution strategy the letters were put under the windshields of parked cars. This had to be done concurrently with the live experiment however. Obviously we could not verify the cultural identity of the person owning or driving the cars. It is very likely that a high percentage of the letters did not reach the appropriate targets. As can be seen in Table 13, for the live interviews, the numbers of people dismissed (because they were not of the proper cultural identity or location) was high.

This was due to the greater mix of people of different cultural identity occurring during the day time as opposed to the more segregated situations for their respective place of residence at night. This problem could be circumvented for the live interviews but not for the lost letters. Also discreetly losing the letters during the day was difficult because of the presence of many people on the streets. It

even proved impossible, to do in one town in Quebec and in two towns in New Brunswick because of their small size. I think the technique should be used at night when there is a greater likelihood that a car parked in a residential area identified as inhabited in majority by people of one specific culture will belong to a person of the same culture..

As discussed above, doing cross-cultural research presents many conceptual and methodological hazards which leave open the possibility of alternate explanations of the results obtained. If a similar experiment were to be done again, then more extensive means, in terms of number of participant-experimenters used and in terms of discriminate sampling, should be considered if interpretable results are to be achieved.

REFERENCES

- Aboud, F. E., & Taylor, D. M. Ethnic and role stereotypes: Their relative importance in person perception. Journal of Social Psychology, 1971, 85, 17-27.
- Amato, P. R., Urban rural differences in helping behavior in Australia and the United States. Journal of Social Psychology, 1981, 114, 289-290.
- Bar-Tal, D. Prosocial behavior: Theory and research. New York: John Wiley & Sons, 1976.
- Baron, S. W. Modern nationalism and religion. New York: Harper, 1947. Cited by Edwards in Giles, 1977.
- Berriault, J. Anti-Quebec. Les reactions du Canada Anglais face au French-power. Montreal: Les Editions Quinze, 1977.
- Berkowitz, L. A laboratory investigation of social class and national differences in helping behavior. International Journal of Psychology, 1966, 1, 231-242.
- Bishop, Y. M. M., Fienberg, S. E., & Holland, P. Discrete multivariate analysis: theory and practice. Cambridge, Mass.: MIT Press, 1975.
- Blalock, H. M. Social statistics (2nd Ed.). New York: McGraw-Hill, 1972.
- Brown, M. B. Screening effects in multidimensional contingency tables. Applied Statistics, 1976, 25(1), 37-46. Cited in Brown, 1979.
- Brown, M. B. Multiway frequency tables. The log-linear model. In W. J. Dixon (series ed.), BMDP-79. Biomedical computer programs, P series, 1979.
- Bryan, J. H., & Test, M. A. Models and helping: Naturalistic studies in aiding behavior. In G. H. Lewis (Ed.), Fist-fights in the kitchen: manners and methods in social research. Santa Monica, Ca.: Goodyear Publishing Co. Inc., 1975.
- Campbell, D. T. Ethnocentrism and other altruistic motives. In D. Levine (Ed.), Nebraska symposium on motivation (Vol. 13). Lincoln: University of Nebraska Press, 1965, 283-311. Cited by Krebs, 1970.

- Campbell, D. T. On the genetics of altruism and the counterhedonic components in human culture. In L. Wispé (Ed.). Altruism, sympathy, and helping. Psychological and Sociological Principles. New York: Academic Press, 1978.
- Christian, J. Gadfield, N. J., Giles, H., & Taylor, D. M. The multidimensional and dynamic nature of ethnic identity. International Journal of Psychology, 1976, 11(4), 281-291.
- Cohen, R. Altruism: Human, cultural or what?. In L. Wispé (Ed.). Altruism, sympathy, and helping. Psychological and Sociological Principles. New York: Academic Press, 1978.
- Cunningham, M. R. Weather, mood, and helping behavior: Quasi-experiments with the sunshine samaritan. Journal of Personality and Social Psychology, 1979, 37(1), 1947-1956.
- Darley, C., & Batson, C. D. From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior. Journal of Personality and Social Psychology, 1973, 27, 100-108.
- Danielli, J. F. Altruism and the internal reward system or the opium of the people. Journal of Social and Biological Structures, 1980, 3(2), 87-94.
- Dewey, R. The rural-urban continuum. Real but relatively unimportant. American Journal of Sociology, 1960, 66, 60-66.
- Edwards, J. R. Ethnic identity and bilingual education. In H. Giles, Language, ethnicity and intergroup relations. New York: Academic Press, 1977.
- Everitt, B. S. The Analysis of Contingency tables. New York: John Wiley, 1977.
- Feldman, R. E. Response to compatriot and foreigners who seek assistance. Journal of Personality and Social Psychology, 1968, 10(3), 202-214.
- Fishman, J. A. Language loyalty in the United States. Mouton, The Hague, 1966. Cited by Edwards in Giles, 1977.
- Friedrichs, R. W. Alter vs. ego: An exploratory assessment of altruism. American Sociological Review, 1960, 25, 496-508. Cited by Krebs, 1970.

Giles, H. (Ed.). Language, ethnicity, and intergroup relations. New York: Academic Press, 1977.

Giles, H., Bourhis, R. Y., & Taylor, D. M. Towards a theory of language in ethnic group. In H. Giles, (Ed.), Language, ethnicity, and intergroup relations. New York: Academic Press, 1977.

Giles, H., Taylor, D. M., & Bourhis, R. Y. Dimensions of Welsh identity. European Journal of Social Psychology, 1977, 7(2), 165-174.

Hanson, R. O., & Slade, K. M. Altruism toward a deviant in city and small town. Journal of Applied Social Psychology, 1977, 7(3), 272-279.

Hardin, G. The limits of altruism. An ecological view of survival. Bloomington: Indiana University Press, 1977.

Hoffman, M. L. Is altruism part of human nature? Journal of Personality and Social Psychology, 1981, 40(1), 121-127.

Holohan, C. J. Effects of urban size and heterogeneity on judged appropriateness of altruistic response: situational vs. subject variables. Sociometry, 1977, 40, 378-382.

Hornstein, H. A., Fisch, E., & Holmes, M. The influence of a model's feeling about his behavior and his relevance as a comparison other on observers' behavior. Journal of Personality and Social Psychology, 1968, 10, 222-226.

House, J. S., & Wolf, S. Effects of urban residence on interpersonal trust and helping behavior. Journal of Personality and Social Psychology, 1978, 36(9), 1029-1043.

Inkeles, A., & Levinson, D. J. National character: The study of modal personality and sociocultural systems. In G. Lindzey & E. Aronson (Eds.), The handbook of social psychology (2nd ed.), (Vol. 4). Reading, Mass.: Addison-Wesley Pub. Co., 1969.

Kamman, R., Thompson, R., & Irwin, R. Unhelpful behavior in the street: City size or immediate pedestrian density? Environment and Behavior, 1979, 11(2), 245-250.

Karpieni, J., & Zippel, B. Ethnicity and helping behavior. Journal of Social Psychology, 1974, 94(1), 31-32.

Kirmeyer, S. L. Urban density and pathology: A review of research. Environment and behavior, 1978, 10(2), 247-269.

Kohlberg, L. Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally, 1969, Chapter 6. Cited by Krebs in Wispe, 1978.

Kohlberg, L. From is to ought. In T. Mischel (Ed.), Cognitive development and epistemology. New York: Academic Press, 1972. Cited by Krebs in Wispe, 1978.

Korte, C. Helpfulness in the urban environment. In A. Baum, J. E. Singer & S. Valins (Eds.), Advances in environmental psychology (Vol. 1). New York: John Wiley, 1978.

Kralt, J. M. A user's guide to 1976 census data on mother tongue (working paper No.3, DSC 79, (8-2400-518)). Ottawa, Minister of Supply and Services, April, 1980.

Krebs, D. Altruism. An examination of the concept and a review of the literature. Psychological Bulletin, 1970, 73(4), 258-302.

Krebs, D. A cognitive-developmental approach to altruism. In L. Wispe (ed.), Altruism, sympathy, and helping. Psychological and Sociological Principles. New York: Academic Press, 1978.

Lambert, W. E., Hodgson, R. C., Gardner, R. C., & Fillenbaum. Evaluational reactions to spoken language. Journal of Abnormal and Social Psychology, 1960, 60(1), 44-51.

Laing, G. W. Contact and attraction between English Canadians and French Canadians (Doctoral dissertation, University of Michigan, 1976). Dissertation Abstracts International, 1977, 37, 5438B. (University Microfilms no. 77-7963).

Laxer, R. M. (Ed.). Bilingual tensions in Canada. The Ontario Institute for studies in education. 1979.

Lieberson, S. Language and ethnic relations in Canada. New York: Wiley, 1970.

Mann, J. F., & Taylor, D. M. Attribution of causality: Role of Ethnicity and social class. Journal of Social Psychology, 1974, 94, 3-13.

Meyer, J. P., & Mulherin, A. From attribution to helping: an analysis of the mediating effects of affect and expectancy. Journal of Personality and Social Psychology, 1980, 39(2), 201-210.

Milgram, S., Mann, L., & Harter, S. The lost letter technique. Public Opinion Quarterly, 1965, 29, 437-438.

Milgram, S. The experience of living in cities. Science, 1970, 167, 1461-1468.

Pearce, P. L. Strangers, travelers, and Greyhound terminals: A study of small-scale helping behaviors. Journal of Personality and Social Psychology, 1980, 38(6), 935-940.

Petersen, W. Ethnicity in the world today. In W. Petersen (Ed.), The background to ethnic conflict. Leiden, the Netherlands: E. J. Brill, 1979.

Piaget, J. The general problem of the psychobiological development of the child. In J. M. Tanner & B. Inhelder (Eds.), Discussion on child development (Vol. 4). New York: International Universities Press, 1960. Cited by Krebs 1978.

Poplin, D. E. Communities. A survey of theories and methods of research. New York: Macmillan, 1972.

Roth, J. Hired hand research. In G. H. Lewis (Ed.), Fist-fights in the kitchen: Manners and methods in social research. Santa Monica, Ca.: Goodyear Publishing Co. Inc., 1975.

Rosenhan, D. L. Toward resolving the altruism paradox: Affect, self-reinforcement, and cognition. In L. Wispe (Ed.), Altruism, sympathy, and helping. Psychological and Sociological Principles. New York: Academic Press, 1978.

Rosenthal, R. Interpersonal expectations: Effects of the experimenter's hypothesis. In R. Rosenthal & L. Rosnow (Eds.), Artifact in behavioral research. New York: Academic Press, 1969.

Rushton, J. P. Urban density and altruism: Helping strangers in a Canadian city, suburb, and small town. Psychological Reports, 1978, 43, 987-990.

Rushton, J. P. Altruism, socialization, and society. New Jersey: Prentice-Hall, 1980.

- Sadalla, E. K. Population size, structural differentiation, and human behavior. Environment and Behavior, 1978, 10(2), 271-291.
- Schwartz, S. H. Normative influences on altruism. In L. Berkowitz (Ed.), Advances in experimental social psychology. (Vol. 10), 1977.
- Shotland, R. L. Lost letter technique: Some methodological considerations. JSAS Catalog of selected Documents in Psychology, 1978, 8, 10. (Ms. No. 1640).
- Statistics Canada. 1976 Census of Canada. Minister of Supply and Services. Ottawa, 1979.
- Stern, D. T. A study of the relationship of helping behavior with ~~unpleasant~~ sex, and socioeconomic status in two parts of the United States. (Doctoral dissertation, U of Tennessee, 1973. Dissertation Abstracts International, 1974, 5664B. (University Microfilms No. 74-11, 291). (Abstract)
- Tajfel, H. Differentiation between social groups: Studies in the social psychology of intergroup relations. New York: Academic Press, 1978.
- Taylor, D. M., Bassili, J. N., & Aboud, F. E. Dimensions of ethnic identity: An example from Quebec. Journal of Social Psychology, 1973, 89(1), 185-192.
- Taylor, D. M., & Guimond, S. The belief theory of prejudice in an intergroup context, Journal of Social Psychology, 1978, 105, 11-25.
- Taylor, D. M., Meynard, R., & Rheault, E. Threat to ethnic identity and second-language learning. In H. Giles, (Ed.), Language, ethnicity, and intergroup relations. New York: Academic Press, 1977. Cited by Giles, 1977.
- Taylor, D. M., & Simard, L. M. Social interaction in a bilingual setting. Canadian Psychological Review, 1975, 16(4), 240-254.
- Triandis, H. C. Interpersonal behavior. Monterey, Ca.: Brooks/Cole Pub. Co. 1976.
- Upton, G. J. G. The analysis of cross-tabulated data. New York: John Wiley & Sons, 1978.
- Weinberger, A. with Glass, A. The good samaritan is alive and well and living in New York. New York, 1981.

January 26, pp. 29-31.

Weiner, B. A cognitive (attribution) - emotion - action model of motivated behavior: An analysis of judgments of help-giving. Journal of Personality and Social Psychology, 1980, 39(2), 186-200.

Weiner, F. H. Altruism, ambiance, and action: The effects of rural and urban rearing on helping behavior. Journal of Personality and Social Psychology, 1976, 34(1), 112-124.

Whitehead, G. I., & Metzger, S. C. Helping behavior in urban and nonurban settings. Journal of Social Psychology, 1981, 114, 295-296.

Wirth, L. Urbanism as a way of life. American Journal of Sociology, 1938, 44, 1-24. Cited in Wirth, 1964.

Wirth, L. On cities and social life: Selected papers. Chicago: University of Chicago Press, 1964.

Wispe, L. (Ed.). Altruism, sympathy, and helping: Psychological and Sociological Principles. New York: Academic Press, 1978.

APPENDICES

Appendix A.

Pilot for Experiment one.

The pilot served two purposes: 1) it was a practice run to familiarize the experimenters with the procedures, and 2) it established the amount of time to request from the subjects to achieve, overall, a 50% refusal rate.

The first purpose was achieved by following the procedure exactly as explained in the methodology proposal. But in this case only the subjects' decisions on whether or not to stop and answer the questions was recorded. If a subject was willing to answer the questions the session was interrupted with excuses. Request for 5, 10, 15, 20, 25 minutes were made in a random order of people at two locations, a shopping center and a city street on the south shore of Montreal. Since those two locations are frequented by people of both languages the experimenters always shifted to the language preferred by the subjects. These two locations were not used in the actual experiment. The number of subjects accepting and the number refusing was tabulated for each time value. The time value coming closest to 50% acceptance was between 15 and 20 minutes. These two values were used together for the actual request in the experiment.

Appendix B.

Data Recording. Page one (English version).

Introduction:

'Excuse me Sir/Ms, I'm doing a research project on people's cultural identity. I would like to ask you a few questions. This should take only 15 to 20 minutes of your time. Do you agree?'
 (if subject asks questions state that you are a university student and that this interview is part of a project you are doing...)

The questions:

[try to get answers to question one and two at least]

1. What language do you use most often in your home?
 French or English.
 [terminate interview if answer is different from location]
2. Do you live in this city (town)? Yes or no.
 [terminate interview if answer is no]
3. How long have you been living here? (in years).
4. Of the languages you understand which one did you learn first? English or French.
5. What language do you most often use at work when talking to a) your fellow workers, b) your supervisor?
6. In what language did you receive your instruction at primary school? French or English.

Defining subject responses.

Ss of the proper cultural identity and location.

Ss not of the proper cultural identity or location.

- | | |
|---|--|
| A. Answers all the questions. | R. Willing to answer but rejected because of restrictions on cultural identity or residence. |
| B. Refuses to answer the questions except 1 and 2. | R. Same. |
| C. Refuses to answer any questions but verbally identified as to cultural identity but not residence. | R. Same. |
| D. Refuses to answer any questions. No identification of cultural identity or residence. | |

Appendix C.

Data recording form. Page one (French version).

Introduction:

Excusez moi M./Mme/Mlle,⁶ je fais une recherche sur l'identité culturelle des gens. J'aimerais vous poser quelques questions. Ça ne devrait prendre que 15 à 20 minutes de votre temps. Acceptez-vous?

[si le sujet pose des questions dit que tu es un étudiant à l'université et que cet interview fait partie d'un travail que tu dois faire...]

Les questions.

[essaie d'obtenir une réponse aux questions 1 et 2 au moins]

1. Quelle langue utilisez vous le plus souvent à la maison?
French or English.
[terminer l'interview si la réponse est différente du lieu]
2. Demeurez vous dans cette ville?
[terminer l'interview si la réponse est non]
3. Depuis combien de temps demeurez vous ici?
4. Des langues que vous comprenez, laquelle avez vous apprise en premier? Le français ou l'anglais?
5. Quelle langue parlez vous le plus souvent au travail,
a) avec vos collègues, b) avec votre supérieur?
6. Dans quelle langue avez vous reçu votre instruction à l'école primaire?

Defining the subject's answers: (same as for the English version).

⁶There is no equivalent to Ms. in French.

Appendix E.

Sequence of locations visited.⁷

First week:

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A			Pilot	Q1		Q2	
M							
P				Q4	QUE	Q3	
M					city		

Second week:

A	NB3	NB	NB2	NB	NB4	NB3
M		city		city		
P	NB1	NB	NB4	NB	NB2	
M		city		city	NB1	

Third week:

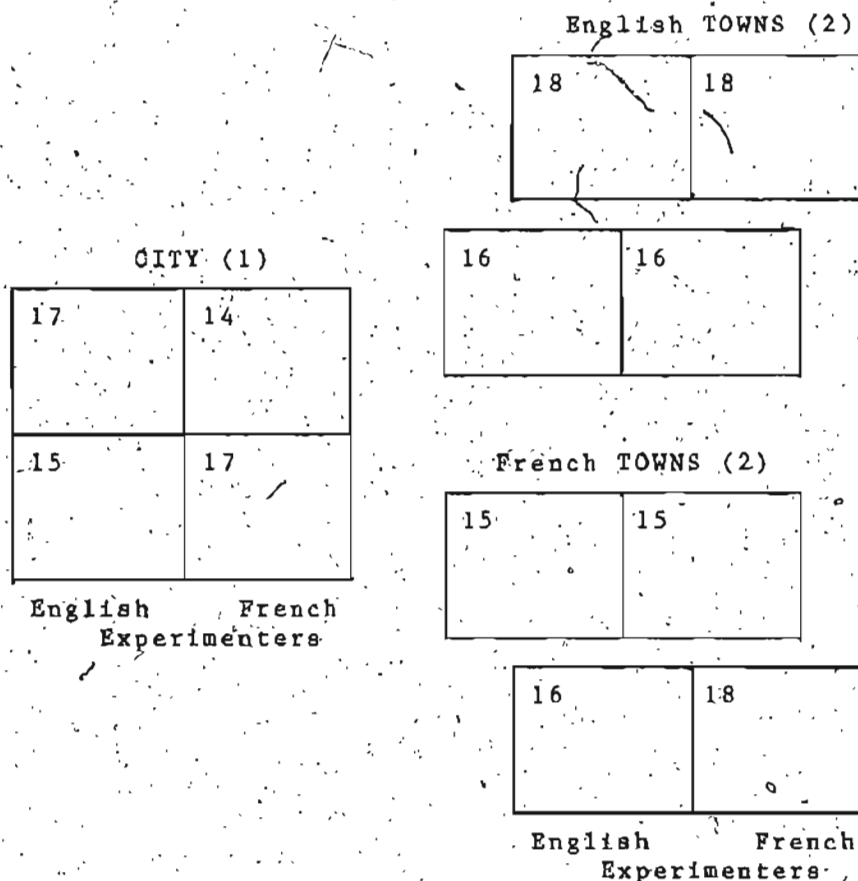
A	Q4	Q3	QUE	QUE ^a
M			city	city
P	Q1	Q2	QUE	
M			city	

^a The French experimenter had to go back on the last Friday to do some subjects.

⁷ The sequence of locations to visit was planned so that if a location was visited once in the morning it would be revisited again in the afternoon. Due to schedule conflict on the part of one experimenter the sequence was changed and since the NB city took a whole day to do instead of half a day as planned we had to do three locations on a Friday and one on Saturday morning to leave New Brunswick inside of one week.

Appendix F.

Block diagram of cities and towns in Quebec with the number of subjects met in each.



NOTE. After revision of the total number of subjects aimed for, we should have met 16 subjects in each location. The actual numbers met by each experimenter is shown in each small square.

For the city each horizontal rectangle represents a majority French or English location within the city. For the towns each horizontal rectangle represents a majority French or English town.

Appendix G.

Block diagram of cities and towns in New Brunswick with the number of subjects met in each.

English TOWNS (2)

16	16
----	----

CITY (1)

15	15
17	13

16	16
----	----

French TOWNS (2)

15	16
----	----

English French
Experimenters

14	16
----	----

English French
Experimenters

Note. See note for Appendix F.

Appendix H.

Sample French letter.

[French address]

Cher Jacques,

Nous te remercions pour l'intérêt
que tu portes à notre organisation. Nous te ferons
parvenir sous peu l'information que tu demandes.

Sincèrement,

Alain Lemieux

Note. A French IBM typing ball was used to type the
French letters.

Appendix I.

Rationale for selection of locations. New Brunswick and Quebec were chosen since they are two bilingual provinces and were also geographically convenient. Since New Brunswick is the smaller of the two (see Table 14) we first selected from it NB city (see note to Table 16 for justification of code names) as the bilingual city hoping that the higher population and number of urban centers in Quebec would make it easy to find its close equivalent in that province.

In Quebec we settled for Que city it being similar in population size and on the ratio of French and English. NB city is a Census agglomeration and the city of NB is its main component. On the other hand Que city is part of the Montreal census metropolitan area but it is not its main component. So, although their ratio of French and English approximately mirror each other, they stand in different position on the community size continuum and also in their geographical relation to other communities around them (see Table 15).

Table 16 shows the mother tongue information for the towns.

Table 14

Population by Mother Tongue for
Canada and Provinces. 1976 Census

Mother tongue	Canada	New Brunswick	Quebec
Total	22,992,605	667,250	6,234,445
English	14,122,770	435,975	800,680
French	5,887,205	223,780	4,989,245
Other	2,537,615	6,925	334,055
Not stated	445,020	10,565	110,470

Note. From Statistics Canada. 1976 Census of Canada.
Minister of Supply and Services. Ottawa, 1979.

Table 15

Population by Mother Tongue for NB City,
New Brunswick and Que City Quebec

Mother tongue.	NB city. ^a	Que city.
Total	56,000	68,000
English	35,500	22,300
French	18,100	42,700
Other ^b	2,400	3,000

^a Population size for NB city is for the city, not the census agglomeration which would be a higher number. Numbers have been rounded to the nearest hundred to prevent identification of locations.

^b Includes not stated.

Note. From Statistics Canada. 1976 Census of Canada.
Minister of Supply and Services. Ottawa, 1979.

Table 16
Population by Mother Tongue for Towns
in New Brunswick and Quebec

--New Brunswick

Code names	English	French	ratio (minority/ majority) ^a
NB1	3,000	700	.23
NB2	5,400	400	.06
NB3	1,000	5,100	.21
NB4	700	3,500	.20

--Quebec

Q1	2,900	1,200	.41
Q2	2,700	1,000	.34
Q3	300	5,300	.06
Q4	400	6,000	.06

^aThe ratios were calculated using the actual census numbers.
Note. All names of locations have been replaced by code names and all the numbers have been rounded to the nearest hundred to prevent identification of the locations as agreed with the ethics committee which approved the design of the research. Other and not stated columns, as they appear in the Statistic Canada table, are not reported here as they were not taken into account in the selection of locations.

Appendix J.

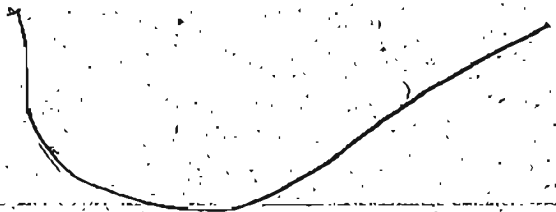
Explanations relative to the log-linear model taken verbatim from Brown (1979), BMDP manual.

Multiway frequency tables. The log-linear model.

"P3F analyses data in a multiway table. The purpose of the analysis is to obtain a description of the relationships between the factors of the table, either by forming a model for the data or by testing and ordering the importance of the interactions between the factors. The analysis is based on fitting a (hierarchical) log-linear model to the cell frequencies; that is, the logarithm of the expected cell frequency is written as an additive function of main effects and interactions in a manner similar to the usual analysis of variance model....(p. 297)

Tests of partial and marginal association for each subset of factors (Brown, 1976).

The test of any effect in a log-linear model depends on which other effects are included in the model. Therefore no single test determines the relative importance of an effect. Brown (1976) suggested the use of two tests -- marginal and



partial association -- to screen effects.

The hypothesis that the partial association of k factors is zero is a test of whether a significant difference exists between the fit of two hierarchical models -- one is the full model of order k , and the other the model that differs from it in that the specified k -factor interaction is excluded. For example, to test the partial association of A and B (i.e., two factors), the full second order model is fitted and then the same model with λ_{AB} set to zero. The difference in the test-of-fit is a test of partial association.

The hypothesis that the marginal association of k factors is zero is a test that the k factor interaction is zero in the marginal subtable formed by the k factors (i.e., summed over all other factors). For example, to test the marginal association of A and B (i.e., two factors), the two-way table indexed by A and B is formed and the two-factor interaction is tested.

The tests of marginal and partial association can be simultaneously used to screen the various interactions to determine whether they are necessary in the model for the data being used, whether they are not necessary, or whether they are questionable. In a second pass of P3F the models

that contain all the necessary terms, and relevant combinations of the questionable terms can be defined, and an appropriate model (or models) for the data can be rapidly chosen. This is further explained in Brown (1976, pp. 303-305).

Conditionning. Cross-sections of a higher-way table.

Sometimes you may want separate multiway tables for each variable such as sex, treatment group, or age group.... this is accomplished by specifying a categorical variable that is used to stratify the cases. We call this **CONDITIONING** the tables on an additional variable (p. 308)."

